

GENERAL LIBRARY,
UNIV. OF MICH.
DEC 16 1901

*Columbia
University
Quarterly*



❖❖❖❖❖❖ PUBLISHED BY THE
COLUMBIA UNIVERSITY PRESS
VOLUME IV :: :: :: NUMBER 1
DECEMBER : 1901 ❖❖❖❖❖❖

Columbia University Quarterly

Contents of the Last Three Numbers

MARCH, 1901

College of Physicians and Surgeons— <i>Frontispiece</i> .	
Preparation for the Study of Medicine	F. S. LEE
The College of Physicians and Surgeons Thirty-Four Years Ago and Now, <i>Illustrated</i>	J. G. CURTIS
The Vanderbilt Clinic, <i>Illustrated</i>	M. A. STARR
Higher Commercial Education	A. S. JOHNSON
Henry Rutgers Beekman, <i>with Portrait</i>	D. B. OGDEN
Undergraduate Publications, IV.	W. A. BRADLEY
The Department of Philosophy	N. M. BUTLER

JUNE, 1901

College Hall, South Front— <i>Frontispiece</i> .	
Latin Versus the Vernacular in Modern Education	G. R. CARPENTER
William Harris, S.T.D., <i>with Portrait</i>	J. B. PINE
The Riotous Commencement of 1811, I.	H. T. WADE
A Letter from Greece, <i>Illustrated</i>	E. D. PERRY
The New Horace Mann School	S. T. DUTTON
College Hall, <i>Illustrated</i>	J. B. P.
An Interesting Accession to the Library	V. G. SIMKHOVITCH
Dr. William H. Draper, <i>with Portrait</i>	FRANCIS DELAFIELD

SEPTEMBER, 1901.

General View of the University— <i>Frontispiece</i> .	
Commencement Day, 1901.	
Alumni Meeting, <i>Illustrated</i> .	
The Riotous Commencement of 1811, II	H. T. WADE
For a Columbia School of Art	A. D. F. HAMLIN
Columbia in the Poughkeepsie Regatta	F. S. BANGS

EACH number also contains **Editorials**, upon matters of current interest; **University Notes**, recording events of importance in the development of all departments of the University, including contributions from the College of Physicians and Surgeons, Barnard College and Teachers College; **Alumni Notes**; summaries of the more important **University Legislation**; and useful collections of **Statistics**.





DO YOU REALIZE

IN READING YOUR MORNING PAPER, HOW
MUCH OF THE NEWS YOU HAVE READ IN
YOUR EVENING POST OF THE DAY BEFORE?

DO YOU REALIZE

THAT THE N. Y. EVENING POST PUBLISHES
MORE LIVE RELIABLE NEWS EACH DAY
THAN ANY OTHER N. Y. EVENING PAPER?

LIPTON'S

CEYLON TEAS.

BLACK OR GREEN

Are the Finest the World Produces.

AWARDED GOLD MEDAL
PARIS EXPOSITION.

For Sale by all Grocers.

80 Front Street,

NEW YORK.

T. G. SELLEW

MANUFACTURER OF

Roll Top Desks



EXTENSION BOOK CASES

FILING CASES, TABLES

COUCHES, CHAIRS

Great Variety of Style and Price

111 FULTON STREET

NEW YORK

Columbia

University Bulletin

From its foundation, in 1890, until it was displaced by the QUARTERLY in 1898, the *Bulletin* contained a large amount of interesting and valuable matter relating to the University in its period of growth and reconstruction. A few complete sets, with index, may be obtained at three dollars each; and single numbers at twenty cents each.

ADDRESS,

The University Quarterly,
Columbia University.

Guaranty Trust Co. of New York.

NASSAU, CORNER CEDAR STREET.

LONDON OFFICES, 33 LOMBARD STREET, E. C. 60 ST. JAMES STREET, S. W.

Capital . . . \$2,000,000. Surplus . . . \$4,000,000

INTEREST ALLOWED ON DEPOSITS subject to cheque or on certificate.

Acts as Trustee for Corporations, Firms and Individuals; and as Guardian, Executor and Administrator: Takes entire charge of Real and Personal Estates; carefully selected securities offered for investment.

TRAVELERS' LETTERS OF CREDIT available in all parts of the world;

ALSO COMMERCIAL LETTERS OF CREDIT ISSUED.

DRAFTS on all parts of Great Britain, France and Germany **BOUGHT and SOLD.**

WALTER G. OAKMAN, President.

GEORGE R. TURNBULL, 2d Vice-President.

WM. C. EDWARDS, Treasurer.

E. C. HEBBARD, Secretary.

ADRIAN ISELIN, JR., Vice-President.

HENRY A. MURRAY, 3d Vice-President.

JOHN GAULT, Manager Foreign Dept.

F. C. HARRIMAN, Asst. Treasurer.

R. C. NEWTON, Trust Officer.

DIRECTORS.

Samuel D. Babcock,
George F. Baker,
George S. Bowdoin,
August Belmont,
Frederic Cronwell,

Walter R. Gillette,
G. G. Haven,
E. H. Harriman,
R. Somers Hayes,
Charles R. Henderson,

Adrian Iselin, Jr.,
Augustus D. Juilliard,
James N. Jarvie,
Richard A. McCurdy,
Levi P. Morton,
Harry Payne Whitney.

Alexander E. Orr,
Walter G. Oakman,
Henry H. Rogers,
H. McK. Twombly,
Frederick W. Vanderbilt,

London Committee:

ARTHUR J. FRASER, CHAIRMAN; LEVI P. MORTON, DONALD C. HALDEMAN.

ESTABLISHED 1851

EIMER & AMEND

Nos. 205-211 THIRD AVE.
NEW YORK

IMPORTERS AND MANUFACTURERS OF

Chemicals, Chemical, Physical, Bacteriological and Scientific App.

Finest German and Bohemian Glassware, R. B. & R. M.
Porcelain, etc., etc., Complete Laboratory Outfits

Schott & Gen. Jena Laboratory Glassware.

Complete Line of Assay Goods



**THE ROESSLER & HASSLACHER
CHEMICAL CO.**

100 William Street, New York

CHICAGO

BOSTON

PHILADELPHIA

NIAGARA FALLS

PERTH AMBOY, N. J.



The Binding of Books for Learned Societies, Colleges and Libraries.
Single Volumes or in Quantities.

NEUMANN BROS.

ESTABLISHED 1879

LIBRARY BOOKBINDERS

7 East 16th Street, near Fifth Ave.

NEW YORK

We make a Specialty of the Correct Arranging and Lettering of
Works in Foreign Languages.

PHILIP F. ERNST

FINE ART BOOKBINDERY

24 EAST TWENTY-SECOND STREET,
Between Fourth Ave. and Broadway, NEW YORK.

COAL

ESTABLISHED 1886
TELEPHONE 215 RIVERSIDE

THOMAS WARD

Main Office, 211 and 213 West 82d St., Near Broadway.

PINE, OAK AND HICKORY

ENGLISH AND AMERICAN CANNEL

WHARF,

79TH STREET & N. R.

DERBY DESKS

and All Kinds of Fine Office Furniture Designed and Manufactured by

DERBY DESK CO., 145 FULTON STREET.

Complete systems of Filing and Card Index Cabinets.

THE BARNARD SCHOOL

117 AND 119 WEST 125TH ST.

Graduates in all the leading colleges. Prepares especially for Columbia.

The school was founded in 1886, receiving its name by permission from the late Dr. F. A. P. Barnard, President of Columbia College.

THE CUTLER SCHOOL

Since 1876 two hundred and seventy-seven pupils from this school have entered college, and most of these have entered Columbia, Harvard, Yale or Princeton

20 EAST 50TH STREET
NEW YORK

HAMILTON INSTITUTE,

45 WEST 81st STREET, MANHATTAN SQUARE, NORTH.

Graduates have successfully entered Harvard, Yale, Princeton, Columbia, Dartmouth, Mass. Institute of Technology, Union and Hamilton.

N. ARCHIBALD SHAW, Jr., M.A., Principal.

HORACE MANN SCHOOL

Teachers College, 120th St., West

New York City

Kindergarten, Elementary and High School Departments
College Preparatory and General Course

TRINITY SCHOOL

CITY OF NEW YORK

BOROUGH OF MANHATTAN

139-147 WEST 91ST STREET

Trinity School was originally established in the year 709 under the auspices of the Venerable Society for the Propagation of the Gospel in Foreign Parts, of London, England, and has been continued without interruption to the present time. It prepares boys for all the Colleges and Scientific Schools, and has been eminently successful in this work. It forms part of the University of the State of New York, having received the certificate of an Academy in 1897. Its diploma entitles the lawful owner to an academic certificate from the Regent's Office.

GENERAL CATALOGUE
OF
OFFICERS AND ALUMNI
OF
COLUMBIA UNIVERSITY

THIRTEENTH EDITION

The volume numbers 760 pages, includes the names of 15,256 graduates, and gives the addresses of all living graduates so far as it has been possible to ascertain them. The Locality Index, comprising the names of all living graduates with addresses, arranged by States, cities and towns, which was printed for the first time in the last edition (1894), has been revised and continued to date. A reproduction of the diploma of Frederick Philipse, of the Class of 1773, bearing the signature of President Myles Cooper, this being one of the only two diplomas of King's College known to be in existence, is printed as a frontispiece.

Copies bound in cloth and stamped in gilt will be forwarded postpaid on receipt of \$2.00. Applications, accompanied by draft on New York, postal or express order, or check, may be addressed to George B. Germann, Secretary of the Committee on the General Catalogue at Columbia University.

J. H. VAN AMRINGE

JOHN B. PINE

GEORGE B. GERMANN, *Secretary*

Committee

THE MACMILLAN COMPANY'S

MISCELLANEOUS NEW BOOKS

The Making of an American

An Autobiography. By JACOB A. RIIS, author of "How the Other Half Lives," etc. Profusely illustrated.

Cloth, 8vo, \$2.00 net; postage 25 cts.

He tells the romance of his early struggles as graphically as he pictured the lives of "The Other Half."

Inductive Sociology

A Syllabus of Methods, Analyses and Classifications, and Provisionally Formulated Laws.

By FRANKLIN H. GIDDINGS, Professor of Sociology in Columbia University. Author of "The Principles of Sociology," etc., etc.

Cloth, 8vo, \$2.00 net; postage 17 cts.

The Control of Trusts

By JOHN BATES CLARK, Professor of Political Economy, Columbia University. Author of "The Philosophy of Wealth," "The Natural Distribution of Wealth," etc.

Cloth, 12mo, 60 cents net; postage 5 cts.

This little work aims to show that a certain definite policy will draw the fangs of the trust and transform it from a public enemy into a public servant.

A Source Book in the History of Education for the Greek and Roman Period

By PAUL MONROE, Ph.D., Professor of the History of Education, Teachers College, Columbia University.

Cloth, \$2.25 net; postage 15 cts.

The need for such a volume is the greater from the fact that few of the existing histories of education in English are written from the sources, and those few are not ordinarily used by the students, being limited as they are to special periods.

The Beginnings of Poetry

By FRANCIS B. GUMMERE, Professor of English in Haverford College.

Cloth, 8vo, \$2.50 net.

This book undertakes to set forth the facts of primitive poetry, so far as they can be ascertained, and to establish some conclusions, not about the origin of the art as outcome of an individual creative fancy, but about the beginnings and development of poetry as a social institution, as an element in the life of early man.

The World and the Individual Nature, Man and the Moral Order.

By JOSIAH ROYCE, Ph.D., LL.D., Professor of the History of Philosophy in Harvard University. Cloth, \$2.25 net; postage 15 cts.

The second series of The Gifford Lectures delivered in Aberdeen.

Words and Their Ways in English Speech

By JAMES BRADSTREET GREENOUGH, A.B., Professor of Latin in Harvard University, and GEORGE LYMAN KITTREDGE, A.M., Professor of English in Harvard University.

Cloth, 12mo, \$1.10 net; postage 17 cts.

This is a popular exposition of the most important and interesting tendencies in the history and development of English words and their meanings.

George Washington and Other American Addresses

By FREDERIC HARRISON, M.A., Hon. Fellow of Wadham College, Oxford; President of the English Historical Society, etc.

Cloth crown 8vo, \$1.75 net; postage 13 cts.

The addresses delivered in Chicago, New York, Boston and various universities early in 1901.

The Life and Letters of John Richard Green

By LESLIE STEPHEN, author of "A History of English Thought in the Eighteenth Century," "Life of Henry Fawcett," etc., sometime editor of "The Dictionary of National Biography."

Cloth, 8vo, \$4.00 net; Postage 20 cts.

"The letters to this delightful volume date from his Oxford days to a short time before his death. They are unaffected, thoughtful, playful, often picturesque, full of testimony to his ardent interest in the human side of things. * * * We heartily commend these fascinating pages to the reader.—*New York Tribune*."

"Books published at NET prices are sold by booksellers everywhere at the advertised NET prices. When delivered from the publishers, carriage, either postage or expressage, is an extra charge."

THE MACMILLAN COMPANY, 66 Fifth Ave., New York

COLUMBIA UNIVERSITY QUARTERLY

VOL. IV—DECEMBER, 1901—No. 1

CONTENTS

Seth Low, <i>with Portrait</i>	W. M. SLOANE	1
Twelve Years of the University	H. T. PECK	12
The Finances of the University, 1889-1901	J. B. PINE	18
Public Law and Comparative Jurisprudence at Columbia	MUNROE SMITH	24
Faculty Regulation of Athletics at Columbia, I.		33
Richmond Mayo-Smith, <i>with Portrait</i>	E. R. A. SELIGMAN	40
Bishop Littlejohn, <i>with Portrait</i>	G. R. VAN DE WATER	45
Dr. Thomas M. Markoe, <i>with Portrait</i>	B. B. GALLAUDET	47
Theodore G. White, Ph.D., <i>with Portrait</i>	J. B. PINE	50

EDITORIAL COMMENT		52
Ex-President Low—Acting President Butler—The Interest Fund—Dormitories Once More—College Hall—A Highly Creditable Record.		
THE UNIVERSITY		58
University Handbook—Quarterly Elections—Columbia Men Honored at the Yale Bi-Centennial—President Low's Annual Report—Columbia University Club—University Council—Religious Interests—Gymnasium—Summer Courses in Pure and Applied Science—Applied Science—Political Science—Philosophy—Pure Science—Medicine—Barnard College—Teachers College.		
STUDENT LIFE		94
At Columbia and Barnard—Athletics.		
THE ALUMNI		99
Notes—Necrology.		
UNIVERSITY LEGISLATION		107
The Trustees, October, November.		
UNIVERSITY STATISTICS	G. B. GERMANN	III

Columbia University Quarterly

EDITORS

- From the Faculty of Philosophy*, CALVIN THOMAS, *Managing Editor*
RUDOLF TOMBO, JR., *Secretary*
From the College, GEORGE R. CARPENTER
From the Faculty of Law, GEORGE W. KIRCHWEY
From the Faculty of Medicine, FREDERIC S. LEE
From the Faculty of Applied Sciences, ALFRED D. F. HAMLIN
From the Faculty of Political Science, WILLIAM A. DUNNING
From the Faculty of Pure Science, ROBERT S. WOODWARD
From Barnard College, WILLIAM P. TRENT
From Teachers College, JAMES E. RUSSELL
From the University Press, JOHN B. PINE
From the Library, JAMES H. CANFIELD
-

The QUARTERLY is issued by the Columbia University Press, with the approval of the Trustees of the University, and is addressed to the alumni, officers and friends of Columbia.

The magazine aims to represent faithfully all the varied interests of the University. It publishes historical and biographical articles of interest to Columbia men, shows the development of the institution in every direction, records all official action, describes the work of teachers and students in the various departments, reports the more important incidents of undergraduate life, notes the successes of alumni in all fields of activity, and furnishes the opportunity for the presentation and discussion of University problems.

The QUARTERLY is issued in December, March, June and September, each volume beginning with the December number. Annual subscription, **one dollar**; single number, **thirty cents**.

All communications should be addressed to the COLUMBIA UNIVERSITY QUARTERLY, at Lancaster, Pa., or (preferably) at Columbia University, New York City. Subscriptions may also be entered and single numbers purchased on the University grounds, at the University Press Bookstore, West Hall.





John Low.

COLUMBIA

UNIVERSITY QUARTERLY

VOL. IV—DECEMBER, 1901—No. 1

SETH LOW

IT was with rueful wit that one of the greatest New Englanders said of his fellow-beings that they were great and they were rich, they were all sorts of good things, only somehow not interesting except as a social phenomenon. This may be true of the New Englander in New England; how are we to deny it when the oracles speak? But if it be true there, it is not true elsewhere; give the New England protester a historic background, a set of old social traditions, a framework of picturesque cosmopolitanism, and he becomes among all living men one of the most interesting. Adapt himself he will, both in conduct and sympathy, to his extrinsical conditions, be the change of his heart never so slight; his efforts in so doing have an epic character.

In the history of this capital city, when the perspective of time is sufficiently long to permit the blending of all its heterogeneous elements into the completed Manhattan type which is already emerging, no class of men will be more in evidence to our posterity than the New York merchant princes of New England descent; the men either lately departed or still living who left the uplands which were barren of everything except natural beauty and

human character, or the rocky forelands which were fertile only in a virile enterprise that defied the menaces of the circumambient elements, and who in the genial air of the national metropolis developed its boundless resources for the good of no class and no place, but to the uplifting of a nation, including themselves.

Their counting-houses and homes were and in part still are familiar land-marks of New York life. They were thoroughly comfortable; yet with a touch of austerity, spacious yet simple; plain, perhaps, yet adorned with what characterized the career of the owner. We have all seen the cabinet museums with their shells from distant strands, the South Sea curiosities gathered from remote ports of call, the few choice pictures on the walls, and often the homely reminders of a just ancestral pride. The lives that were led in such houses were marked by pleasant existence and genial thought. Hospitality was the characteristic of them all; their virtues were piety and probity. The owners had other uses for their abundant means than lavish display, and there was no taint of enervating æstheticism in the atmosphere. There was not even a tinge of the narrow spirit which sometimes marks the trader, but there was the generous soul of catholic commerce. There was no superfluity, because the masters practiced a broad Christian philanthropy which sprang from the sense of responsible stewardship. Cheerfulness abounded, because a due regard was paid to a full measure of innocent pleasure, to interesting and ennobling avocations.

It was from such a home that Seth Low entered the class of 1870 in Columbia College. In the present day of large things we are tempted to forget the moral values of an influence which numerically appears insignificant. But Columbia College thirty years since was quite as powerful in its way as is the proud university which now crowns the Manhattan acropolis. The force of Francis Lieber, Charles Davies, Charles Anthon, under the presidency of Charles

King, had been mighty² for good; and when it was further strengthened by the power of Frederick A. P. Barnard, with Drisler and Nairne, with Rood and the faithful band of scientific gladiators then gathered about the School of Mines, the place as a whole might well court comparison with its contemporaries. We were not many, the students of the late sixties and the early seventies, but were quite as militant and turbulent as it behooved youth in those days to be. And we were loyal. I recall no one who wished himself elsewhere, while most of us could count our mercies and many were eager to take such advantage of our opportunities as our powers permitted. We certainly worked as many hours per week and as faithfully, upon as many subjects and as worthy ones, as the individual men of to-day, though our choice was not so broad. We could not consult our inclinations in the selection of intellectual diet, but perhaps our enthusiasm was as well placed and our discipline all the more severe for that very reason.

The younger Low was no stranger to what Columbia might mean. His older brother had already carried the zeal for learning, sport and college association into the household, and Seth came among us from the Brooklyn Polytechnic eager for a life he already knew in part. We marked him from the beginning. He was young and ruddy, he was vigorous and plucky, he was joyous and natural. We expected that he would stand for something, and before long we saw that he expected to do so and would. Just what that something was, most of us, I think, never knew any better than he did, because we were all in the age of instinct still. But we felt it more and more continuously, and looking back we of course understand it fairly now. It was the living of a normal life—a life full of cheerful optimism, but lived under a sense of duty, whether distasteful or pleasant; the boy was really the father of the man. He worked hard and played hard, he was conspicuous for a trained mind and a trained body. In the

presence of that specialization which looms gigantic in our present life, he so often disclaims the quality of a scholar that many have forgotten, and most do not know, that in college he was conspicuous in exactly that way, having been foremost in his year as a Grecian, among the foremost in every other department, and first in general average. It was not a case of "Eclipse first and the rest nowhere", for he was neither a monster nor a prodigy. Nor was it a case of the "admirable Crichton", for he was no prig and he had his faults like the rest of us; venial, but still sufficient to make him very human.

Seth Low, therefore, appeared to us all a distinct contributor to the life of Columbia, because "the mere living" was so eminently worth his while; the out-door sport, the social intercourse, the intellectual work, the moral and religious reactions, all found in his daily walk a fair exhibit. There is but one element of later life which I do not recall as having been conspicuous then, that of conscious leadership. At this he had his turn, but he was not magisterial nor phenomenal in the exercise of control. He was a good, yes an excellent comrade, a real fellow, an equal, a companion; in short, a fine fellow-student but in no sense an eminent leader or administrator or organizer. He was alert above all things, however,—alert to see where worthy distinctions lay and to gain them, alert to find friends worth having and to win them, alert to see where help was needed and to give it with joy and without effort, alert to distinguish the right and to follow it without question. Of course this was leadership in a high, true sense, and a generous youth among other generous youths does more by example than by agitation. But there was neither effort to control nor consciousness of uncommon influence. These things we did not then analyze, but we were cheered by the pleasantness and we felt the uplifting, we were helped by the continuous moral influence which neither wasted nor rested and never preened itself.

On the other hand his college life left a fine, deep, permanent influence upon him. As one social state succeeds another in the lapse of time new safeguards have to be provided for old virtues. Seth Low knew very well the attitude of his forefathers; he knew it by precept, by discipline and by instinct while still a child and a school-boy. But as his life progressed he saw many old sanctions of faith and conduct gradually fade away, and with the close of the civil war he beheld the brilliant dawn of a new social state. Intensely curious, he had to try all things in order to hold fast that which is good. In the church the stage of emotional piety was passing to make way for the reasonable grounds of faith upon which alone the scientific movement permits it to fix its anchor. In the moral sphere the movement was already inaugurated which threw even theism into the crucible and which has introduced the human element into the metaphysical basis of ethics only to furnish the ten commandments with a sanction more Sinaitic than they ever had before. In the affairs of the mind we were already wondering whether we were really using the best discipline to turn the mind into the finest instrument; with a view to thorough-going tests the practical scientific as well as the theoretical scientific education was already inaugurated and humanism was roused from its apathy to fight for life.

President Low would probably have been the last to declare that he was clearly conscious of these weighty matters at nineteen years of age, but he was, I think, conscious of a grave problem in the very atmosphere of our class-rooms. No one could hear Barnard state the objections to the old "Evidences," as he did so fully, without feeling his mind troubled. No one could sit under Lieber, Nairne or Rood without a suggestion of what was at hand in politics, literature and science. Neither *Œdipus* nor the Sphinx of old were more enigmatical in their questionings nor more sincere than were the interrogations which came

so incessantly to us in those days. Of course, we had no satisfying answer, but as I look back I am impressed with the profound conviction that we did get in the resultant force of combined instruction a very satisfactory precept. It came to us in the attitude of our teachers, which was the same whether we conned the classics, or labored with scientific abstractions, or followed the paths of history. That precept was to examine if we must, to question according to our needs and to take a critical attitude for humility's sake, but meantime to be up and doing.

Wie, wo und wann, die Götter bleiben stumm,
Du halte dich ans Weil und frage nicht warum.

To charge upon life with sound heart and open mind, to see the fullness of living in the light of historic experience, to respect Church and State as holy orders and reform without pulling down,—these things we felt to be what made life the precious thing it was.

This precept may well have been widely promulgated in other colleges, as I doubt not it was, but in the matter of emphasis upon industrious, untiring appreciation of fundamental things I think Columbia had an enviable distinction and that her sons feel that obligation to be their first duty. Seth Low for certain had all his native impulses quickened by it, and he seemed to grow in stature perceptibly. He labored as did his fellows under a disadvantage which existed then, though it has vanished now. The two hundred and fifty students who at that time went and came about the old precincts in Forty-ninth Street were scarcely known in the metropolis except to the great families which had so long been the bulwark of the city. To the vast throngs of those who had come in from New England, from the West, from foreign shores, and were already coming from the South, the College was rather incidental than elemental. This Low surely felt, and that it is no longer even measurably true was due to the vision he had, a vision

which grew ever clearer, that if his principles and those of his remarkable father were to stand on all fours in this community, it must be by the very agency which had made them stronger in his mind. Columbia must attain physical and intellectual as well as moral dimensions commensurate with the giant community which needed its influences, whether desirous of them or not.

I remember as if it were yesterday, so tremendous was the energy of the self-appointed teacher, how a tall sophomore caught a certain youngster by the arm early in his freshman year and with the authority of St. Peter demanded, What is the whole duty of a Columbia student? There was an impulse apparently to murmur: "Honor to superiors," but before the trembling reply could pass the lips of the catechumen, the catechist thundered out: "Good manners and don't you forget." This was really the conscious effort of the College, and we had a prize for good manners in those days, no one being ashamed of it. The Winchester aphorism "Manners makyth man" was an ideal. Of course young men bring that which is themselves from their homes, and this was true of the Lows; yet at least there was every incentive not merely to sharpen the wit but to refine the movement of both body and mind. No school of manners can mould all material, but Seth Low was exactly the man for whom the pleasant, refining, genial atmosphere of Columbia was sure to do the most possible and it did. What he has been since during high manhood he was already in 1870 as a youth, gracious and sympathetic. It is believed and said that in a given time he can interview more men to the contentment of each than anyone now in public life. Probably to do so requires the quick turn and adaptability of both intellect and emotion. As his contemporaries recall him he had both when, the first man of his year, he pronounced his commencement essay at the close of his student life. I venture to think that old Columbia stood for much in forming, invigorating and bringing into play

the gifts which Low developed so lavishly during his administration and which are so admirably outlined in the minute of appreciation adopted by the University Council.

Yet something more was needed to develop the strength of the boy, viz., that sense of responsible subordination in a great going concern, such as teachers find in large institutions, clerks in a great mercantile corporation, or officials in public administration. The business training of Seth Low began immediately in a school than which there was none finer, the firm of his father. There was the rigid discipline of a well-conducted, prosperous office and a system in which promotion could only be earned by thorough mastery of the detail in each successive step. There was no doubt drudgery in plenty, but it was that of a steady application which is ennobled by the certainty of advance to such higher things as are suited to growing capacity. Moreover, there is abundant play for the imagination in East Indian commerce. It is not only that the silks, spices, teas and other dainty wares arouse agreeable associations, but there is the romance of distant voyages, the tales of the sea-captains and the touch of adventure; in commerce as then conducted there was the element too of sagacity, the charm of balancing decisions, the chances of argosies and of the markets for their precious lading. As a boy Seth Low had, from the windows of the family home on Brooklyn Heights, seen the fine clippers with strange names which flew his father's pennant as they came up the harbor and passed with stately courtesy to their wharves. Nearer contact with burthen and values did not diminish his interest or dwarf his creative fancy.

But there was still more. While he was finding himself and his business powers a great change was coming in the methods and results of commerce. Steam and submarine cables were doing a startling work of transformation, and problems of exchange, of markets, of transportation loomed into a perplexing eminence. He saw and was part in a

complete metamorphosis of the business world. There was need of wise council, of shrewd prescience, of quick adaptation. These qualities were all forthcoming in the Low concern, and it safely rounded a cape against which many craft, equally strong to outward appearance, made shipwreck. This was all an experience invaluable to a young man, receptive, clear-sighted and quivering with interest in life. His manhood and simplicity of insight were alike remarkable to those who knew, marked and appreciated his progress and measured the parts he was displaying from day to day.

This too was the time when he gave hostages to fortune and prepared to found a home with the life partner who, though silent to the greater world, has been a potent influence for high things in his career and in the wide circle of friends that gathered around his hearthstone. Not even here dare we venture to reveal what is sacred, but we may be permitted to rank Seth Low high among those to whom marriage brought all that is possible in the world. A home which may be at one time thronged with politicians and statesmen, at another with teachers and professors, at still another with the young gay life of the metropolis, at yet another with diplomats and financiers—such a home might easily be stately and busy as an elegant salon or an intellectual exchange, and nevertheless lose something of the bloom we fondly associate with the word. To this latest hour all that is implied in the idea remains there unimpaired and complete, an achievement for the home-maker which requires no commentary or fulsome amplification of words.

We need not here give an account of how the man thus formed rose into public eminence, of what he was as Mayor of Brooklyn and President of Columbia University, of what he did, how he did it and of the mighty struggles for the right as he saw it, in which he was engaged. The facts are vivid in the memories of us all. Besides my theme is not the philanthropist, the adminis-

trator, the statesman nor the educator, not arms, nor conflicts, but the man. Of him perhaps there are some further things which ought still to be said, although from 1881 onward it is difficult to disassociate him from his work.

First of all it has been remarked that for the now common "week-end visits" in country houses he has never been available. On the first day of the week, as is well known, he is always to be found at the head of his pew in St. George's, and he has it publicly understood where he is to be found, for he is conspicuous as one who passes the plate in that great congregation. But it is not for this purpose that he remains a dweller in New York over Sunday. It is because he cannot and will not miss his great Bible class of workingmen, about which the world at large knows nothing. This class he teaches and cherishes, not altogether from missionary zeal or altruistic motives. As he puts it, he could not find life real unless he knew his friends in that class as men and brethren. It pleases him to say, and no one can doubt his entire sincerity, that they give him far more than they can hope to get from him. He is like a strong man after prayer when he leaves them, and the humility with which he contemplates their lives in comparison with his own, and with those he sees for six other days, is for him like the strength Antæus won from the feel of mother earth—only some of us would say that contact with the plain, sound human mind is more heavenly than earthy.

This quality made it inevitable that Seth Low should be in full and hearty sympathy with what we call settlement work, the highest form of philanthropy in its etymological meaning, the love of men which seeks to make frequent the magic touch of man with man, however wide apart their ordinary walks in life may be. It is face to face, and sometimes heart to heart, that owners and borrowers, hand workers and brain laborers, those burdened with wealth and those staggering under penury, that the antipodes of

society meet in the one touch which makes the whole world kin. He is the guide, philosopher and friend of all that move in the University Settlement, a neighborhood guild of whose corporation he is not merely president, but of whose soul and sentiment he is a sympathetic, lively part. His capacity for friendship has all the qualities of the virtue as set forth in the Ciceronian tract whose lines he has known so well, of the reciprocity between equals which was the Roman virtue, but it has more; it has that power of interchanging relations with inferiors which makes him popular, of the people, which makes him appreciated by his elders and his juniors, by his superiors and his subordinates, by the street and the home.

It is rather the fashion now to talk about the joy of duty, the elevation of spirit which comes from self-discipline. It is not quite certain that our president was so far from his Puritan ancestry as to have attained this goal. Perhaps he is not of those who agonize in the struggle for the mark but he is not unacquainted with the physical and spiritual exhaustion so generally correlated with losing battles. He is no stranger to disappointment, and sorrows have not always been spared him. It seems right to say this, for the geniality of his temper, the good cheer of his presence, the smile of welcome, and the humorous word or quizzical expression have combined to create a belief that with him the rough places have been made smooth by the magic of wealth. Poise is never nature, it comes by a hard-earned self-respect and in a balance that requires nerve and brawn to maintain. His is of course a fortunate life. He does not belong to the vaunted class of self-made men. One of our greatest essayists has said that the gist of the matter is, not where a man starts from, but where he comes out. Without the spur of poverty a man at fifty who has been mayor, commissioner of great public works and of the highest international concerns, who has been president of a great uni-

versity in its most vital transition epoch and who, girding himself afresh, fights a gallant fight and enters upon a mighty struggle for the right once more in the political forum, such a man surely displays a power of character which makes his start, however fortunate, unimportant in the face of achievement. Here we must leave him, but it is with the reasonable assurance that he has still a fine life to live upon a stage of the grandest dimensions. With his health unimpaired, with his energy redoubled, with his conscience quickened by long-sustained effort we must hail him onward and bid him God speed, though regretful that, while in our academic course we ourselves must go forward—with serenity and confidence, let us hope, even though without him—we can know his guidance only in memory, and cannot remain in daily sustaining contact with his support and his sympathy.

W. M. SLOANE

TWELVE YEARS OF THE UNIVERSITY

TO one who is both an alumnus and an officer of the University, the past twelve years of its development possess a double interest. There is, in the first place, the wonderful growth which, as it admits of an outward and material expression, is obvious to the casual observer. There is also that profounder transformation which Columbia has undergone and of which, perhaps, the extent and true significance can be comprehended only by those of whose very lives it has become a part.

In external things, indeed, the change is sufficiently amazing to one who can recall the old Columbia as it was. To be aware of these things one needs but to look about him. To enumerate them fully he must resort to tables of statistics and an elaborate massing of details. Yet perhaps it is not from statistics and details that impressions come to us most vividly; since what we know means

always so much less than what we feel. Sometimes a trifling little incident will bring with it a much more startling revelation than ever comes from any possible amount of taking thought, since the very unexpectedness of it illumines like a sudden blaze of light. Quite recently, for example, I received a letter from a clergyman who had graduated from the College some twenty years ago. His object in writing was to say that his brother had been spending several years in Germany, whence he had just returned after taking a degree, and my correspondent desired to suggest that this brother if invited might be willing to give one or two public lectures at Columbia, taking as his subject the academic life of the German universities.

Somehow or other, that letter made me realize all in a moment the immensity of the change which the past twelve years have brought about. The writer of it so evidently had before his mind a picture of the Columbia that he himself had known some twenty years before, and he was so evidently writing as though it still existed quite unchanged. To him it was still a college rather uncomfortably housed in a few not very sightly buildings. To him the library was still a dim, capacious loft to which one mounted cautiously on a sort of ladder to find a miscellaneous collection of unsorted books stacked up on shelves under the charge of a librarian who was seldom there. To him the teaching body still consisted of but two small faculties doing their work without the slightest reference to each other, with limited apparatus, and in crowded quarters. To him the student body was still made up of two or three hundred undergraduates whose intellectual horizon was bounded by the completion of the fourth year. To him the only purpose of Columbia's teaching was acquisition and retention and not as yet creation and discovery. He felt that if his brother were to come here and deliver a few public lectures it would be a most unusual event—an event that would create a stir—and he was well

assured that any information about the usages and the educational methods of the German universities would be novel to our entire student body and not unprofitable or too familiar to many members of the faculties.

This letter and its implications might well serve as a measure of the distance which lies between the old Columbia and the new, between the college of the past and the University of the present. To-day one looks about him with a sense of wonder at the contrast. The noble site, the group of massive halls, the splendidly equipped and perfectly administered library, the seven faculties whose officers outnumber the whole student body of twenty years ago, the numerous affiliated institutions, the completeness of equipment in every department, the elaborate facilities for original research, and the well-ordered, harmonious system by which the entire educational structure is knit together so that each part shall be in harmonious relation to every other part and to the whole—here is the new Columbia, the University which has sprung up into stateliness and strength upon the foundations which were laid in the old college nearly a hundred and fifty years ago. But more significant of the change than anything which can be symbolized in concrete form is the full development of the spirit and purpose with which the work of the University is carried on. The spirit is a spirit of freedom, and the purpose is that which distinguishes creative from receptive scholarship. Professor Hugo Münsterberg, in a very acute criticism of American educational ideals, has expressed the opinion that our universities are in danger of forgetting this distinction; and that hence, in spite of the most magnificent endowments and the very broadest range of scholarly interest in every field of intellectual endeavor, there exists the possibility that they may be, after all, merely glorified gymnasias, filled with men whose aim it is to master what is already known, but unconsciously neglecting the study of method and the critical gifts upon which depend

the attainment of new knowledge, and the discovery of new truths. Herein lies, of course, the very soul of the university ideal, which is an inspiration not primarily directed toward the more perfect comprehension of what others have already done, but toward adding something further to the sum of human knowledge. And it is with a cordial recognition of this standard and a frank acceptance of this test that Columbia to-day proclaims herself a University.

Twelve years ago, she reached the parting of the ways. In entering upon her period of development, there were two definite conceptions, two theories, of which one must be taken and the other left behind forever. One was that view of the nature of a university which Mr. Lowell crystallized in his famous, fearless epigram to the effect that a university is a place where nothing useful should be taught. Like every other epigram, this stressed a meaning by exaggeration; yet its true significance is clear. It pointed to the university as creating and maintaining an intellectual aristocracy who should constitute the "remnant" of which Matthew Arnold spoke, holding fast to a pure idealism in a materialistic age, and slowly leavening by its pervasive influence the crudity and grossness of utilitarianism. The second conception of a university is that set forth by Cardinal Newman when he said that every sort of knowledge which any human being could possibly seek to acquire ought to be imparted in its halls. This looks to the university as fostering an intellectual democracy in whose sight all training, all knowledge, all acquirement, have in the abstract an equal claim to our consideration; so that those who seek to gain them must all alike be sharers in the life and the activities of the university—not only receiving its influence but themselves determining what the nature of this influence shall be.

Dispassionate students of the deeper problems of educational theory may differ in their judgments upon these two

conceptions, and their view will differ not alone in what they think of them as abstract propositions, but also in what they think of the relation of each one to the circumstances of our national conditions and traditions. So far as Columbia is concerned, however, all discussion of the subject must be purely academic. Of the two conceptions, she has made the second one her own; and in the face of an accomplished fact all argument is necessarily unfruitful. What is much more to the point is the loyal and unquestioning acceptance of her policy by all who share the honor of making it effective in its practical achievement.

Now I think it is just here that one can best appreciate the true significance of what was wrought for the University by President Low. On the purely material side of its development, we may conceive that some other president in his place might have done the things which he accomplished. Under another's headship Columbia might equally have sprung into a new life and have put forth the strength and splendor that are hers to-day. The same outward signs of greatness that are to be found in brick and stone, the same perfection of equipment, the same smooth-running machinery of administration, the same effectiveness of plan—all these might possibly have come to us under the presidency of another. But it is on what may here be called the moral side that Mr. Low's twelve years of close association with the University were so remarkable as to be unique; for the true strength of a university does not lie in its imposing structures, nor in its wealth, nor in the variety of the opportunities which it offers, but rather, first and last of all, in the spirit which pervades its life and the *morale* of those who carry on the work that is the reason for its being.

Twelve years ago there existed a state of things which it is difficult to describe. There was no unity of feeling or of purpose, no agreement as to what was best for the future, no common interest in what was happening in the present.

A pervasive unrest, a clash of opinion, and one very side a belief that everything went by chance, or perhaps sometimes by favor—these were a few of the obstacles to good feeling and to effectively harmonious effort. Then came Mr. Low, and order was evolved from chaos. Regarding it all in a spirit of detachment which would have been next to impossible for any one else, and exhibiting that perfect sense of justice and fair-mindedness which is so very rare, he inspired every one, from the very first, with confidence and loyalty. It was felt instinctively that the right thing would be done, that every interest would be considered and every question viewed without the slightest prejudice; and it was because of this assurance that the transformation of the small college into the great university was effected so smoothly, so completely and so successfully as to render possible the achievement of its present and the splendid promise of its future.

Twelve years in the life of a university are but a moment when measured by the standard of mere time. But the past twelve years have been an epoch. It is not conceivable that any period of like extent will ever again be fraught with so much that is vital to Columbia. These years will be remembered as something quite distinct from anything that came before and from anything that followed, and with them and with all for which they stand, the name of President Low will always be inseparably linked.

HARRY THURSTON PECK

THE FINANCES OF THE UNIVERSITY
1889-1901

THE financial history of Columbia is yet to be written and the space allotted to this article will permit of only a summary review of the conditions existing prior to Mr. Low's installation. A fair estimate of the progress of the last twelve years, however, must be to some extent comparative; particularly in view of the widespread but wholly mistaken popular belief that Columbia has always been "rolling in wealth." So far from having been born to riches and raised in opulence, as seems to be generally supposed, the institution has known but one or two brief periods in its whole history when its income was sufficient to meet even its pressing wants, much less to permit the development which its trustees desired and planned; and at the present time the need for larger resources is greater than ever before.

Endowed upon its incorporation in 1754 by the grant from Trinity Church of King's Farm, its existence became a possibility; but the King's Farm at that time was valued at about £4,000, which even for that period was but a modest capital, especially as it was for many years wholly unproductive. In addition to this grant the college received contributions of money from individuals and from the state and some few gifts of books and apparatus, of relatively small value, representing in all a few thousands of pounds; but its buildings were seriously damaged during the Revolution, its collections dispersed and its funds greatly reduced, so that upon its reorganization in 1784 it was in much the same financial condition as at its inception. Earnest efforts were then made to obtain funds, but with very moderate success; and a report made by the treasurer in 1805 shows that the property of the college then consisted of King's Farm, all of which was occupied by the college buildings and campus

except fifty-eight lots and certain "water lots" granted by the city and lying adjacent to the King's Farm, producing a rental of about £560; and of bonds valued at £15,000. The total income from fees and endowments at that time was £1,558 17s. 3d., and the college was in debt for a hall and lecture-rooms. Under a grant from the state the college also owned lands near Lake George, which were sold in 1820-28 for about \$11,000, and these lands, together with the property mentioned in the report just quoted, comprised all the property that the college owned—in addition to its very meager buildings, books and equipment—in 1814.

In that year the state deeded to the college the four blocks of land bounded by 47th and 51st Streets, extending from Fifth Avenue nearly to Sixth Avenue, known as the "Hosack Botanical Garden," as compensation for the loss of a tract of wild land in New Hampshire which had been granted to the college by George III., but which was ceded by the state upon the settlement of the New Hampshire grants. In 1814, however, Fifth Avenue was no more than a country lane, if as much, and the garden is officially described as being "within a few miles of the city." It was estimated by the trustees that it would bring not more than six or seven thousand dollars, if offered for sale, and for a long period the land was a constant source of expense for taxes and assessments. So heavy was this burden, in fact, that the trustees were constantly compelled to borrow in order to meet current expenses, and but for a splendid faith in the future of the city and of the college they would have been forced to succumb to the pressure of financial necessity. Appeals to the state and to the public were so far unheeded that in a memorial presented to the legislature in 1814, the trustees describe the college as being "a spectacle mortifying to its friends, humiliating to the city."

Not until about 1842 did the real estate of the college begin to produce any considerable return. In that year

its total income amounted to \$22,865, and it had a floating debt of \$58,050, which in 1850 had increased to \$68,000.

After 1814 no considerable gift or legacy was received until 1843, when Frederick Gebhard left a bequest of \$20,000 for the endowment of a professorship in German; and then ensued another long period of barren years until 1881, when Stephen Whitney Phoenix, of the class of '59, became the first of the University's great benefactors by leaving to it his entire fortune, then estimated at about half a million of dollars. The bequest was subject, however, to several life estates, and it is only within the past few months that the University has come into possession of any part of it, much the larger portion being still restricted. During the next few years several bequests and donations were received, aggregating not much more than \$100,000, and some books, apparatus and collections were given to the college; but the stream of benefactions was feeble and intermittent, adding but little to the financial strength of the institution.

During President Barnard's administration the Schools of Mines and of Political Science had been organized, in addition to the already existing Law School, and at the time of Mr. Low's installation the University was about entering upon a period of educational expansion. This was made possible by the consolidation of the College of Physicians and Surgeons with Columbia, and by the reorganization and coördination of the separate schools on a university basis. It soon became apparent, however, that the 49th Street site and buildings, representing an investment of about \$1,000,000, were entirely inadequate to meet existing conditions, still less to permit natural growth, and that either the college must be crippled or it must be rebuilt on far broader foundations.

Early in 1891, President Low recommended that a committee be appointed to consider the purchase of a new and more spacious site. In the fall of the same year this com-

mittee secured an option on the property on Morningside Heights now occupied by the University, at the price of \$2,000,000, and a few months later the purchase was consummated. The cost seemed enormous, but the site was not only the best which the city could offer, it was the only one obtainable which could possibly meet the requirements of Columbia if it was to become a great university, preserving the historic association between King's College and Manhattan Island, and giving to the institution the prominence and dignity essential to the accomplishment of its aims and to the extension of its work and influence. In acquiring this land the president and the trustees fully realized that they were incurring an expenditure not of two million dollars, but of vastly more; for the purchase, in order to be made available, entailed the erection of numerous and expensive buildings and a larger scale of operation. This responsibility was deliberately assumed in the confident belief that the adoption of an advanced and liberal policy, and the re-establishment of the college upon a scale commensurate with the size and importance of the city, would unfailingly command the confidence and support of the alumni and of the public. Courage and determination in no small measure were required in entering upon the undertaking, and perhaps even more in carrying it to a successful issue. In exactly four years from the date of the option the corner-stone of the first building was laid, and on October 4, 1897, two years later, the University was installed in its new home.

The effect upon the educational efficiency and reputation of the University was immediate and far-reaching, as others have pointed out, and the financial results were no less marked. The total cost of land, buildings and equipment at the new site, including the buildings now in construction, was \$6,778,390, and the cost of the buildings simultaneously erected for the enlargement of the College of Physicians and Surgeons and the Sloane Maternity Hos-

pital was \$879,688, amounting in all with interest to \$8,126,053 for permanent improvements, expended between the date of President Low's installation in February, 1890, and June 30, 1899. Of this liability, \$1,150,000 was provided for by the sale of the 49th Street site and of unimproved property, and \$3,957,299 was discharged by gifts and bequests received during the same period, leaving unpaid in round figures \$3,000,000, which now constitutes the debt of the corporation.

Upon the consolidation of the College of Physicians and Surgeons lands and buildings of the value of \$1,259,000 were deeded to the University, and other gifts and bequests of money or land for specified purposes, such as the endowment of professorships, fellowships and prizes, or for general endowment, were received during the same period amounting to \$2,085,320, in addition to specific gifts such as the Avery Architectural Library, the Allis Laboratory, the Worthington Hydraulic Laboratory, the Temple Emanuel Library and others, conservatively estimated at \$200,000.

There were also received for current expenses various sums amounting in all to \$581,359, making a grand total of \$8,082,978. Gifts such as these prove that the president and trustees did not rely in vain upon the liberality of the people of New York, and their significance is increased by the fact that while nearly \$2,000,000 came from Mr. Low and other members of the Board, a still larger proportion came from the alumni at large and from representative business men, in no way connected with the University, but profoundly impressed with its value to the city and to the country. Compared with the precarious finances and slow growth of the earlier years these figures evidence the enormous advance which the University has made since 1889, and the strength which it has gained on its financial side; and with the exception of perhaps half a million dollars, the gifts which they represent are directly

and entirely traceable to the broad and progressive policy which was adopted upon the removal of the University. The satisfaction with which this result must be regarded would have its qualification if it had been attained at the expense of educational development, but the very contrary is the fact. Mr. Low has consistently and earnestly maintained that under no circumstances should we allow our educational work to be impaired, and in this view the trustees have fully concurred, with the result that the educational growth of the University has been fully commensurate with the increase of its material resources. So far as this can be expressed by figures it will be found in a comparison of the receipts and expenditures of 1889-90 with those of 1900-1901. In the former year the income of the corporation from all sources was \$519,006. The expenditure for the same period for educational purposes was \$458,420. These sums were far in advance of any which the college had previously had at its command, and the great increase was due to the falling in of old leases, and their renewal upon terms more nearly in proportion to the increased value of the land. In the latter year, 1900-1901, the income from all sources, except trust funds, amounted to \$942,936.30; the income from trust funds was \$54,611.12, and the expenditure for educational purposes was \$1,003,995.

The progress which the University has made in these twelve years, however, cannot be measured by dollars and cents, nor by land and buildings, though as to the latter it should be said that the grounds on Morningside Heights include eighteen acres as against two acres at 49th Street; that the buildings already erected there have a seating capacity for 3,600 students as against 600; a library capacity of one million volumes as against two hundred thousand, and space available for additional buildings ample to accommodate six thousand students, and to permit of dormitories for several hundred, while reserving ample

areas for light and architectural effect. Most important, however, are these buildings as the external signs of a great university, the embodiment of lofty ideals and of vast potentialities. The expenditures upon Morningside Heights have not only created the University of to-day, but they have made possible the University which we have the right to believe it will grow to be in the course of centuries. Measured by these results the outlay is small compared with what it has produced and will produce. That this cost has already been so largely met is the surest indication that it will be extinguished at no distant date, and the fact that the University has an existing debt of three million dollars as one result of Mr. Low's administration finds a more than sufficient justification in the further fact that during the same period the corporation has grown richer by eight millions of dollars in money and property, and that the college has been raised from its former relatively small estate to the front rank of American universities.

JOHN B. PINE

PUBLIC LAW AND COMPARATIVE JURISPRUDENCE AT COLUMBIA

IN the present year the department of public law and comparative jurisprudence, established in 1876 by the appointment of its present senior professor, has rounded its first quarter of a century; and the School of Political Science, which is historically an outgrowth of this department, has completed its twenty-first year, and may therefore be said to have attained its academic majority. These facts furnish a fair excuse for a retrospect.

I

In the winter of 1875-76, Dr. Burgess, then professor in Amherst College, delivered a course of lectures in the Co-

lumbia Law School, then situated in Great Jones Street. In the following spring he was appointed to a double professorship at Columbia: he was charged with instruction in public law in the Law School, and with the conduct of the department of history and political science in what is now known as the College, but was then described as the School of Arts. In 1877 he obtained the assistance, in the School of Arts, of a single instructor, Mr. Mayo-Smith, who in 1878 was promoted to an adjunct professorship. In 1880 lectureships in Roman law and in administrative law were created, and were filled by the appointment of Dr. Munroe Smith and Mr. Bateman; and the adjunct professor of philosophy in the College, Dr. Alexander, was invited to deliver a course of lectures upon the history of philosophy, with special reference to political theories. At the same time these five instructors were organized as a new faculty and placed in charge of a new school—the School of Political Science.

The principal motive by which the trustees were actuated in taking this step was their desire to create an opportunity for advanced work and for the training of investigators in history, economics, public law and comparative jurisprudence. Research work in these fields was practicable neither in the College nor in the Law School. The College had other functions, the Law School other aims. By creating a school in which no degrees should be given except to college-bred men, the trustees undertook to provide a fit body of students. By insisting, from the outset, on research work for the higher degrees, the faculty made the school what the trustees designed it to be. All this seems, to-day, so much a matter of course that it is necessary to insist upon the relative novelty, at that time, of these requirements. Except at Johns Hopkins University (then a very recent creation) there was no organized graduate research work in the United States. The master of arts degree was generally conferred without such work and fre-

quently without examination. The doctorate of philosophy was conferred in most instances as an honorary degree. At Columbia, the School of Political Science was not only the first of the existing graduate schools, but for ten years it was the only one. A heavy responsibility, therefore, rested on those who directed its work and especially upon its dean. It will always be remembered to the credit of the trustees that they had attempted, a quarter of a century earlier, to develop university work in New York City. But it will also be remembered, and in 1880 it was very distinctly remembered, that the experiment made in the fifties failed. If the experiment made in establishing the School of Political Science had likewise failed, the injury to the cause of the highest education would have been incalculable.

In the view of Professor Burgess and his associates, it was far less important to attract a large number of students to the new school than to justify its existence by productive scientific work. To those who measured success by numbers, the school, at the close of its first decade, may well have seemed but moderately successful. In 1889-90 it had but 98 students, and of these 79 were members of the Law School. In the ten years it had graduated but 25 doctors of philosophy. Its success lay in the character of the dissertations produced for the doctorate and in the amount of published scientific work which proceeded from or was edited by the officers of the school. That the experiment was regarded as successful in the educational world was shown by the number of similar schools or departments that were established, before 1890, in other universities. That the Columbia trustees considered the experiment successful is indicated by the fact that in the following decade (1890-1900) they organized two other research schools on the same lines, made the Medical School a graduate school, and announced their intention of putting the Law School on the same footing.

The Faculty of Political Science, however, was charged from the outset not only with the direction of research work, but with much work of instruction. Upon its members devolved the teaching of public law, Roman law and comparative jurisprudence to law students, and the conduct of the historical and economic courses in the College. In all its instruction it has avowedly aimed, from the beginning, "to prepare young men for the duties of public life." This declaration never meant that the School of Political Science was to be a technical school of training for the civil service. Neither in the nation nor in the states was the civil service in 1880 on such a basis that a young man, however well prepared, could enter it with the prospect of an assured career (unless a permanent clerkship be regarded as a career), nor has either the federal or state service yet been placed on such a basis. That the school is placing a fair number of its students in non-political administrative positions is shown in the last report of the president of the University; but it is discharging an equally important function in teaching to undergraduates things that will be useful to them if they find their way into political offices, and a more important function in teaching to graduate students, and especially to law students, more things of this sort than can properly be taught either in a college or in a law school. The connection between the School of Political Science and the Law School is of especial value in preparing young men for the duties of public life, because it is in our law schools that the greater part of our legislators and executive officers are educated. Among the students of the Columbia Law School who availed themselves in 1880-81 of the opportunity of receiving instruction in public law was a young man who has since become President of the United States.

In its early years, as has been indicated, the school was most strongly developed on its legal side, three of its five original instructors being lawyers and the majority of its

students law students. Its subsequent development has naturally been greatest on the economic and historical sides. Its faculty since 1897 has included four lawyers, four economists and four historians; and of the students primarily registered in the school, the greater number are devoting themselves chiefly to economics and history.

The heavy loss which the School has recently suffered in the death of its senior professor of political economy leaves in its service but two of its original faculty. The value of Professor Mayo-Smith's exertions and of his counsel in the upbuilding not only of his department but of the whole School will never be fully appreciated except by those who were associated with him in this work from the beginning.

II

The above retrospect has served to explain the position occupied in the school and in the University by the department of public law and comparative jurisprudence, and has cleared the way for considering the development and character of its proper departmental work. Instruction, as distinguished from the guidance of research work, has always been and will continue to be an important part of its duties. For more than ten years the members of the public law department, Professors Burgess, Munroe Smith and Goodnow (the latter of whom had been appointed, after Mr. Bateman's untimely and lamented death in 1883, to the chair of administrative law) had to teach history in the College in addition to their proper work in law. At length, however, in the second decade of the school's existence, the strengthening of its faculty on the historical side enabled its legal members to devote themselves wholly to law; and in the development of this part of the work of the school they were greatly aided by the appointment, in 1890, of Professor Moore to a separate chair of international law and diplomacy. Since 1890 the department of public law and comparative jurisprudence has in fact been

dissolved into four independent departments, although, as a matter of convenience, the collective designation has been retained.

While the departments of history and economics do the bulk of their instruction work, as distinguished from research work, in the College, the department of public law and comparative jurisprudence does the bulk of its instruction work in lectures to students of the Law School. Here its teaching is substantially professional, since a knowledge of public as well as of private law is essential to a well-rounded legal education. The difficulty of developing even this side of its work in the old Law School was a second and very potent motive with the trustees for establishing the Faculty of Political Science. The distinguished founder and warden of the Law School, Professor Dwight, cannot fairly be charged with any failure to appreciate the intrinsic importance of public law or of Roman law; but the lack of such appreciation in the legal profession was at the time so general that no law school could free itself from this discouraging influence. Twenty years ago it was generally believed that a lawyer had little need of constitutional law and less need of international law. Administrative law was not recognized as a separate branch of the law—few lawyers had ever heard of it—and Roman law was regarded as purely decorative material. Since that time, and especially since 1890, these subjects have obtained much more general recognition. A large number of chairs of public law and of jurisprudence have been established throughout the country; and many of these chairs, even in universities possessing a non-professional graduate department, have been placed in the law schools.

At Columbia, however, the essential part of this reform in legal education—the tender to law students of instruction in public law and jurisprudence—was secured from the outset by the complete reciprocity existing between the two

schools; and the enrichment of the Law School's curriculum was rendered visible to the educational world, in 1891, by the spontaneous action of the Law Faculty in making all the legal courses offered by the Faculty of Political Science (except those dealing with legal history) elective for the professional degree. The proportion of students in the Law School registering for courses in the School of Political Science has increased from eighteen per cent. in 1889-90 to fifty-two per cent. in the present academic year. At the same time, the separate position of public law and comparative jurisprudence in a non-professional faculty has realized, in large measure, the anticipated result of promoting research. During its twenty-one years of existence the School of Political Science has graduated 347 masters of arts; and of the theses required for this degree considerably more than the half have been produced in the department of public law and comparative jurisprudence. During the same period the school has graduated 78 doctors of philosophy, and of their published dissertations 37 are to be credited to the same department. In no other American university or law school have students of public law and comparative jurisprudence produced any such quantity of published research work.

The following table shows the present relation of research work and instruction work in the department of public law and comparative jurisprudence. Although some students who have their major subjects in history or economics are also pursuing investigations in the public law seminars—and it may be remarked, in passing, that some of the most valuable doctor dissertations have been produced by such students, and especially by those whose research work lies on the border line between law and economics—no students are included in the research column except those who have their major in this department.

STUDENTS IN PUBLIC LAW AND COMPARATIVE JURISPRUDENCE
1901-02

Primary Registration	Research	Instruction	Totals
Political Science.....	11	43	54
Law School.....	31	206	237
Totals.....	42	249	291

It is well known, and has been shown in previous numbers of the UNIVERSITY QUARTERLY, that the departments of history and economics at Columbia jointly attract more graduate students than the corresponding departments in any other American university. It is believed that the same is true of the department of public law and comparative jurisprudence. No comparison can be made with those universities in which the subjects in question are taught by members of the law faculties, because the statistics of such universities do not show how the work of their law students is divided between public and private law. If, however, we disregard all the students in the above table who are primarily registered in the Law School, except those who are engaged in research work for the higher degrees, there remains a larger body of graduate students engaged in non-professional work in public law and comparative jurisprudence than can be found at any other American university.

A second table presents, for the purpose of comparison, the relation of research work and instruction work in the whole school. It fails, of course, to indicate the entire work done by the faculty, since the historical and economic departments do the greater part of their instruction work in Columbia and Barnard Colleges. Were these included, the total number of students would be more than doubled.

STUDENTS IN SCHOOL OF POLITICAL SCIENCE: 1901-02

Primary Registration	Research	Instruction	Totals
Political Science.....	134	7	141
Law School.....	42	208	250
Other University Schools.....		17	17
Totals.....	176	232	408

The above tables show, in a way not made evident in the annual Catalogue, the amount of research work and instruction work conducted by the public law department and by the whole school. The president's annual report, indeed, gives the total number of students receiving instruction in each school, and the admirable statistical tables which the registrar has drawn up for the latest of these reports shows the total number for each department; but in the Catalogue a special count is necessary to disengage from the entire list of students credited to the three non-professional schools those who belong primarily to the School of Political Science; and a further special count is required to find what number of these have their major subject in public law and comparative jurisprudence. Even then the number obtained fails to include any students who are pursuing simultaneously the study of public and that of private law, for all such students are treated as belonging to the Law School exclusively. A supplementary line indeed indicates that a certain number of students primarily registered in the Law School are pursuing courses somewhere in the three non-professional schools; but there is nothing to show what proportion of these are taking courses in any particular non-professional school, nor is it intimated that this number includes only such students as are candidates for the higher degrees.

This method of presenting our university statistics to the public fails to suggest in any adequate way the value of the public law and jurisprudence courses in attracting students to Columbia. The fact that the university law schools, from Cambridge, Massachusetts, to Berkeley, California, are rapidly furnishing themselves with instructors in public law and jurisprudence indicates that there is an appreciable demand for instruction in these subjects. Educational reform may outrun the public demand—that it has so often done this at Columbia is greatly to Columbia's credit—but such reform does not come when there is no de-

mand for it. In view of this evidence of a growing demand for instruction in public law and jurisprudence, it may fairly be inferred that some of the 237 students who are pursuing these courses together with the courses in private law were attracted to Columbia by the possibility of making this combination, and that, if no courses in public law and comparative jurisprudence were offered at Columbia, some of these students would have selected another law school. It should not be said that the students who are studying simultaneously in the two schools are drawn from the School of Law into the School of Political Science; they are drawn by both schools into Columbia University. What degree of attraction each school exercises upon them, it would, of course, be invidious to inquire and difficult to ascertain. Nor should it be forgotten that it is not alone the reputation of these or any other schools that brings them students. The reputation of the University as a whole has much to do with the number of students drawn into each of its parts.

MUNROE SMITH

HISTORY OF FACULTY REGULATION OF ATHLETICS AT COLUMBIA

I

THE code of rules which regulate any university's athletics represents an evolutionary growth or development and not a series of arbitrary enactments. This fact is not always appreciated by students, graduates or even officers of instruction. The student body is a changing one, and new men, when brought into contact with rules for the first time, are apt to regard them as sudden creations; the graduates recall the conditions of earlier years and often jump abruptly from them to those of the present, while lack of interest in athletics, ultra-enthusiasm for them or positive

opposition to them, place many instructors out of touch with their regulation. The writer has therefore welcomed the opportunity to set before the graduates, students and friends of Columbia a historical sketch of the development of faculty effort in this particular. After a brief preliminary statement of the nature and scope of the problem, its historical and evolutionary phases will be taken up for consideration.

Ten or fifteen years ago, intercollegiate athletics in all the larger universities emphatically demanded control and reform. Columbia was a few years later than some sister institutions in taking steps in the matter, partly because, outside of boating and track athletics, other branches of outdoor sports had not gained a very firm foothold; and partly because it was the disposition of many of our officers of instruction, as indeed it is to some extent to-day, not to recognize officially that athletics existed or do exist. Their position was and is, that the authorities should carry on the educational and disciplinary work of the University without taking specific cognizance of this branch of student activity. But, conditions being what they are to-day, such an attitude cannot be maintained by us or by any sister institution without doing irreparable injury to intercollegiate reputations. The support of such a position argues unfamiliarity with the problem, because the desire to win is so keen that there is no institution upon whose teams would not appear representatives not *bona fide* students, unless questions of eligibility were officially decided.

Regarding inter-collegiate athletics, three possible courses are open to any faculty, and each is logical and consistent.

1. Intercollegiate contests may be permitted during both term time and vacation, under regulations which aim to keep them within legitimate and reasonable bounds.

This is the position of nearly all the larger institutions to-day.

2. Intercollegiate contests may be forbidden during term time and be permitted only during vacations.

This would practically abolish football, and would seriously affect some minor branches of sport, but it would prevent the absorbing excitement of games during the working sessions and would leave only systematic training and intra-mural contests to interfere with regular duties.

3. Intercollegiate contests may be forbidden entirely. Athletic sports would then be purely intra-mural, and would embrace contests between classes or schools, or other units, in those branches which require teams.

The several topics which demand attention from a faculty committee of control as well as from graduate advisers are the following, and with each will be briefly given the reasons which make oversight necessary.

1. *The Management of Finances.*—Superabundant experience has shown the transient and irresponsible nature of undergraduate management in those branches in which expenses are considerable.

The general situation, outside of a few large and prominent institutions in which athletics more than pay for themselves, involves the conduct of an enterprise which is a foreordained financial failure. The deficit must then be made up by subscriptions, but if it be not so provided for the student manager passes on a bequest of debts to his successor. The inheriting manager, not having accumulated the debts himself, feels but a slender responsibility, and thus the accumulation increases until the alumni subscribe the necessary funds to protect the good name of their alma mater.

The magnitude of the transactions in some of our large institutions is so great, surpassing as it does a hundred thousand dollars per annum, that no undergraduate or body of undergraduates can in the nature of things look after the book-keeping involved. Unless, therefore, older

men of tried business experience control the funds, supervise budgets and keep the books, abuses are inevitable.

2. *Questions of amateur standing* likewise present serious difficulties. The ideal for a college team is that it should be made up of *bona fide* students who are primarily in attendance on account of the educational advantages offered. But in prominent lines of sport the desire to win has become so great that promising players or candidates (both being technically described as "material") are hunted up in every likely quarter and are induced to enter where their services will be especially appreciated. It is conceivable that, unless careful precautions are taken, the inducements may be of such a character as to vitiate amateur standing, and, therefore, the authorities are expected to guard against this contingency. Yet every person at all experienced in life will appreciate the difficulty of obtaining trustworthy evidence even when a wrong has been committed. No prominent fitting-school to-day which has promising "material" escapes the visitations of one or more representatives of athletics in our universities. The effects are unfortunate in more ways than one, but lack of space at this time prevents the writer from going further than a mere statement.

3. *Scholarship tests* are matters which no faculty can afford to overlook. They are of two kinds. The first kind is designed to allow only properly registered students, who are taking the amount of work required in the usual course for a degree, to represent the university. Incompletely registered or partial students, and those who have been admitted without entrance examinations are all open to serious objection, and nowhere ought a purely formal connection to qualify a student to represent an institution. The second kind of test is designed to prevent a man from falling back and getting into the drag because of membership in teams. These tests usually take the form of requiring regular standing and continuous progress with a

class, or else of demanding a minimum amount of conditions or back work as an essential for eligibility. Everyone familiar with the subject knows that the training required for a prominent branch of sport is a severe drain on energy and time, and that any student handicapped with much back work cannot wisely undertake it.

4. *Schedules of games* and of other engagements must of necessity be supervised in order that too many trips away from home may not be undertaken, and in order that games do not take place with undue frequency during working days.

5. Some supervision should be exercised either by a faculty committee or by responsible graduate advisers over the selection of coaches and trainers and over their compensation. It is obvious that only candidates of good standing and character should be chosen.

This brief general statement will enable a reader to understand something of the problem presented and will throw light upon the forms which the rules have assumed. The statements could be much amplified and could be supported by many instances taken from actual experience.

The first steps looking toward faculty supervision at Columbia were taken under a resolution of the University Council of Nov. 1, 1892, which read as follows:

"Resolved, that a committee of three be appointed by the president to confer with the representatives of the Athletic Union as to the desirable relations of the faculties to athletic sports."

President Low appointed Professors Van Amringe, Kemp and Osborn. The committee held a number of meetings, at one of which the managers and captains of the several teams met with it and discussed the general bearings of the subject. Outside of any faculty relations the leading branches of sport were at that time combined in a central body called the Athletic Union. The union sought to unify matters, to have the funds cared for by a

permanent graduate treasurer, and to introduce business-like methods. The union was not conspicuously successful in these particulars, but it was the forerunner of the present much more efficient methods, according to which the Comptroller of Sports of to-day and the Graduate Advisers practically accomplish its main ambitions. It is also well to remark that Columbia had no gymnasium of its own, until six or seven years later, and therefore that no central rallying place for athletic interests was afforded.

The discussion of the subject, however, led the Council of the University on May 15, 1894, a year and a half after its first motion, to pass the following resolution :

"Resolved, That the committee appointed on November 1, 1892, to deal with the control of the athletic sports of the students, be authorized and directed to prepare and submit to the Council a code of regulations to govern the public appearances of student organizations of every kind."

In carrying out the instructions of the Council the committee drew up, in the succeeding fall, a report to the president, making certain suggestions. No regular code of rules was, however, formulated, nor were active steps taken until the University moved to the new site in the autumn of 1897. Meantime Professor Osborn resigned from the committee and the remaining two members alone constituted it. At the new site the plans for the gymnasium materialized, and Dr. W. L. Savage was appointed director and was likewise added to the committee. On the evening of February 4, 1898, Professor Van Amringe called a conference at his house, between the committee and Messrs. F. S. Bangs, J. B. Pine, R. E. Sayre and G. T. Kirby, of the alumni, in order that a tentative set of rules might be drawn up. After a discussion that lasted till midnight, the general regulations of the Intercollegiate Association of Amateur Athletes were substantially adopted, so far as they were fitted for our conditions.

In a tentative form the rules were printed in the *Columbia Spectator* of March 30, 1898, and discussion was invited from all students. Finally on May 6, 1898, the committee adopted them substantially in their original form, except that the five hours registration originally required of a special student was raised to ten. The rules went into effect July 1, 1898, and were printed in the Catalogue for 1898-99, under the announcement of the gymnasium. They were as follows :

To represent Columbia University in any public contest, a student must conform to the following rules :

SECTION I

- Rule 1. He must be an amateur.
- Rule 2. If a candidate for a degree, he must attend regularly all the exercises of his class.
- Rule 3. If a special student, he must give evidence of good faith regarding his intention to remain a full year in the University. He must also take courses amounting to not less than ten hours a week and attend regularly the exercises in such courses.
- Rule 4. Like other students, he must maintain a satisfactory standing in his class. A student who does not maintain a satisfactory standing in one school of the University, cannot, by entering another, alter his status as regards these rules.
- Rule 5. He must not receive any form of remuneration; that is, he must not receive any pecuniary benefit whatsoever from his connection with any athletic team.
- Rule 6. He must pass a physical examination satisfactory to the Director of the Gymnasium.
- Rule 7. Students from other colleges or universities who have represented those institutions in any intercollegiate contest shall not be eligible to represent Columbia University until they have been in residence for at least one academic year.

SECTION II

Schedules for all games must be submitted to the Committee on Athletic Sports and approved by them.

SECTION III

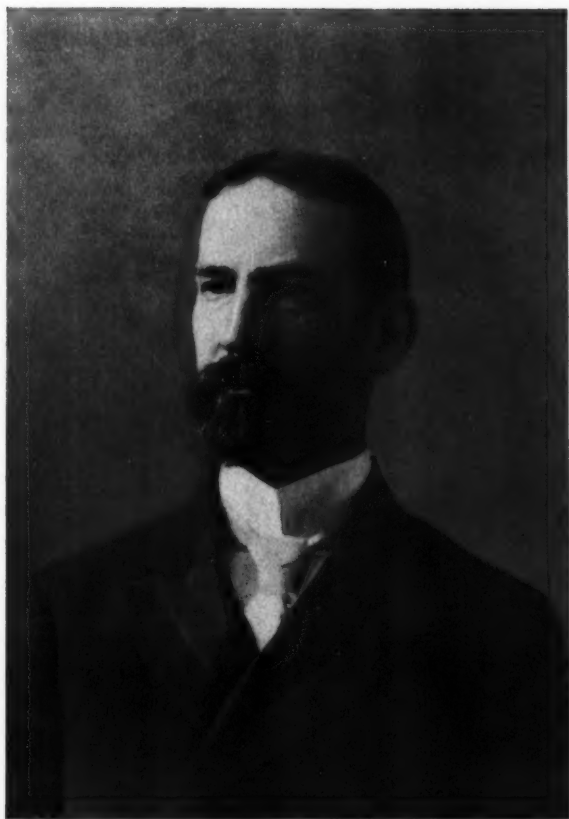
No athletic association of the University shall enter a team or an individual in any public athletic contest so long as there is any outstanding indebtedness against the association or athletic interests thus represented.

J. F. KEMP

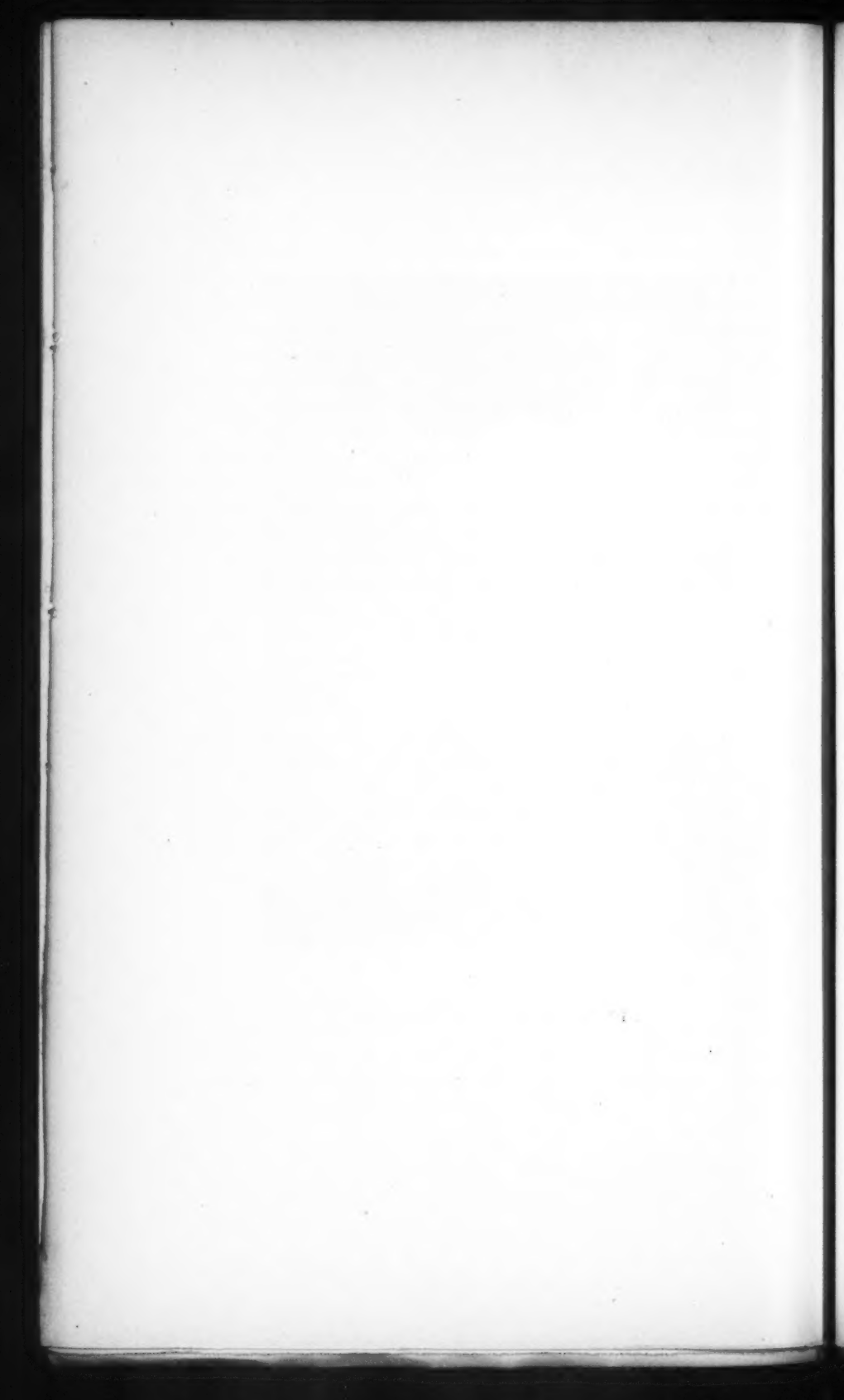
RICHMOND MAYO-SMITH

THE tragic death of Professor Mayo-Smith, which occurred on November 11th, brought to a sudden end a career which was one not only of great achievement, but also of great promise.

Richmond Mayo-Smith was born in Troy, Ohio, in 1854. He entered Amherst College in 1871. Under the influence of Professor John W. Burgess he became interested in political science, and after graduating from Amherst in 1875 he spent two years at the universities of Berlin and Heidelberg, prosecuting his studies in economics and social science. In 1877 he was called to Columbia as instructor in history and political science, in 1878 he was made adjunct professor of political economy and social science, and finally, in 1883, he was promoted to the full professorship in the same department. When the School of Political Science was organized in 1880 he became one of the five original instructors, retaining at the same time his seat in the faculty of the School of Arts, as the College was then called. At the time of the reorganization of the University and the inception of the Council in 1890 he was made a member of that body, and continued as the elected delegate of the Faculty of Political Science up to the beginning of the present academic year.



RICHMOND MAYO-SMITH, Ph.D.



So much for the bare facts of his lifelong connection with Columbia. To form an estimate of his real influence it will be necessary to consider him in the three-fold aspects of scholar, teacher and citizen.

As a scholar Professor Mayo-Smith had acquired a position of high rank among the economists of the country. He made numerous contributions to the scientific periodicals of America and England, and wrote occasionally for foreign publications like the German Verein für Socialpolitik. He was one of the original board of editors of the *Political Science Quarterly* in 1886, and almost every volume has contained an article on some economic topic from his pen. He was one of the founders of the American Economic Association, and always took a deep interest in its welfare, attending its meetings regularly and almost invariably contributing a paper or taking a leading part in the discussion. His writings on economics proper covered a wide range of topics. Although he published only one volume on a special subject—the book on “Immigration and Emigration,” which still remains the model of its kind—his articles and especially his numerous reviews of new books showed that he possessed a firm grasp on the fundamental principles of the science. As an economist his chief characteristics were thoroughness, unquestioned accuracy, open-mindedness, clearness of thought and expression, and a rare sanity of judgment.

It was, however, in the allied field of statistics—which has of recent years successfully vindicated its claim to be considered a coördinate if not an independent science—that Professor Mayo-Smith won his greatest triumphs. He was indisputably the foremost American scientific statistician. From the very outset of his professional career he appreciated the fundamental importance of sound statistical methods in American public life, and he resolved to bend his utmost energies to the task of placing American statistics on a thoroughly scientific basis. His course on

statistics was the first given in any American university, and for a long time remained the only one. His publication on the subject soon began to attract the attention of practical statisticians, and won for him the admiration and friendship of such men as President Francis A. Walker and Carroll D. Wright. He became one of the founders of the rejuvenated American Statistical Association and before long was elected its vice-president, a position which he still occupied at the time of his death. His reputation at home had now spread to such an extent that he was made a member of the National Academy of Science—a rare distinction at a time when the Academy was in such doubt as to whether economics or statistics was a real science that it numbered only a single representative of those disciplines among its members. Shortly afterwards he was elected to the International Statistical Institute, which then had only half a dozen members in America. From this period date his wider international reputation and the beginnings of his warm friendship with such eminent scholars as Bodio of Italy, Levasseur of France and Craigie and Edgeworth of England. He attended several of the European meetings of the Institute, notably those of Berne, Paris and St. Petersburg, and contributed occasionally to its *Bulletin*. The two volumes in which he summed up a part of his conclusions—"Statistics and Sociology" and "Statistics and Economics"—immediately won a place as the authoritative works on the subject, and have been largely used as text-books throughout this country.

The characteristics of Professor Mayo-Smith as an economist stood him in good stead as a statistician. His sobriety of judgment led him to point out the limitations of the statistical method as well as the dangers which encompassed the subject; and his lucidity of thought and expression enabled him to invest with interest what to the average man seemed the driest part of the "dismal science." As a scientific statistician he was without a peer in America;

and his reputation attracted not a few students to the School of Political Science.

This leads us naturally to consider him in the next place as a teacher. It is rare to find a man who is at once a creative scholar and a successful undergraduate teacher. Professor Mayo-Smith combined these characteristics. From the very outset he was occupied in teaching economics to undergraduates, and although the conditions of those early years, almost a quarter of a century ago, compelled him to emphasize the needs of a broader university development he retained to the last his warm interest in the College and its undergraduates. The instruction of the juniors remained in whole or in part in his hands, and his senior course has always been with one exception the most popular of all the classes in history and political science and among the three or four largest electives in the whole institution. Numerous are the graduates of the College who continued with him the pleasant associations and the friendships formed during their undergraduate life. As a college instructor he was unusually conscientious, eminently fair, and uniformly courteous.

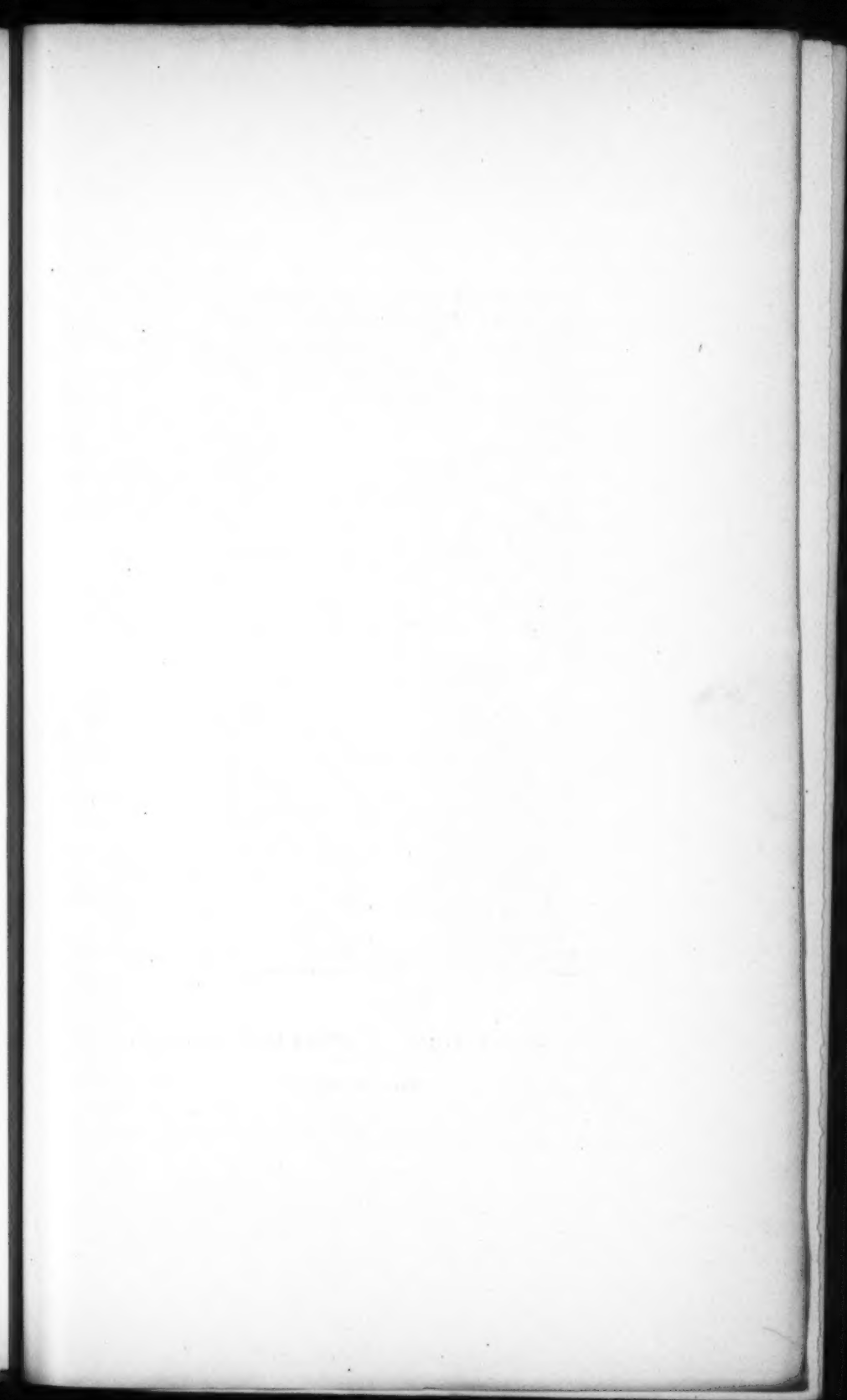
As a university lecturer, dealing primarily with graduates, he was no less successful. The interest which he instilled into his auditors in his lectures and especially in his seminar may be recognized from the fact that many of his former students are now filling professorial chairs, while others are occupying positions of dignity in the administrative service of state and nation. Among these former students are one of the chief statisticians of the present census, the chief statistician of the New York Labor Bureau and a considerable number of men in the various departments in Washington. Under his guidance the department of economics and sociology became so well known that, as was pointed out in this *QUARTERLY* not long ago, the number of graduate students of economics at Columbia actually came to exceed the aggregate of such students in

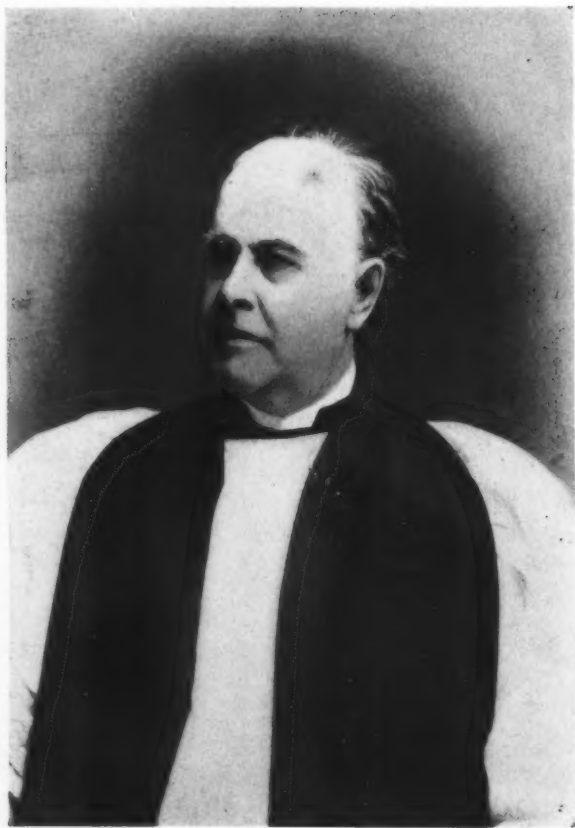
all the other six great eastern universities taken together. The successful building up of the department was in no small measure due to his own rare modesty, to the utter absence of any attempt to enhance his own reputation by belittling that of his colleagues, and to his thoroughly scientific spirit of encouraging his subordinates to untrammelled and independent exertion.

Finally we must speak of him as a citizen and a man. He was not one of those who, amid the engrossing cares and exactions of a professional and scholastic career, forget that devotion to science does not excuse one from the equally high obligations of good citizenship. He was always warmly interested in the fight for good government. He thoroughly believed in the practicability of lending a hand to the unfortunate, and was so much attracted by the work of the University Settlement that he lived there at various periods in his career as a resident. He was so completely in sympathy with the principles of the Charity Organization Society that he served for many years as a member of its Council and acted until the last as the head of one of its district committees, sparing neither time nor effort in his endeavor to make it a success.

Amid all these duties, both in and out of the University, he found leisure for not a little social intercourse. His friends outside the academic sphere were many and warm. What attracted them were the same qualities that won for him so much recognition in college circles. His intellectual honesty, his receptiveness, his unfailing courtesy and kindness, his balance of mind and his rare good judgment all conspired to secure for him an influence which was equalled by but few in the University.

That such a man should be suddenly stricken down is distressing. That he should be removed in the very plenitude of his physical and intellectual powers is doubly sad. For his career, brilliant though it was, had scarcely more than begun. Those who were privileged to know him in-





RT. REV. ABRAM N. LITTLEJOHN, D.D., LL.D.

TRUSTEE, 1879-1901.

timately are aware of the fact that he had formed important plans for future work and usefulness, and there is no doubt that had he been spared to round out the usual term of life, he would have deserved still better of science and would have shed still more lustre on the University to which he was so loyal and whose welfare he had so deeply at heart.

EDWIN R. A. SELIGMAN

BISHOP LITTLEJOHN

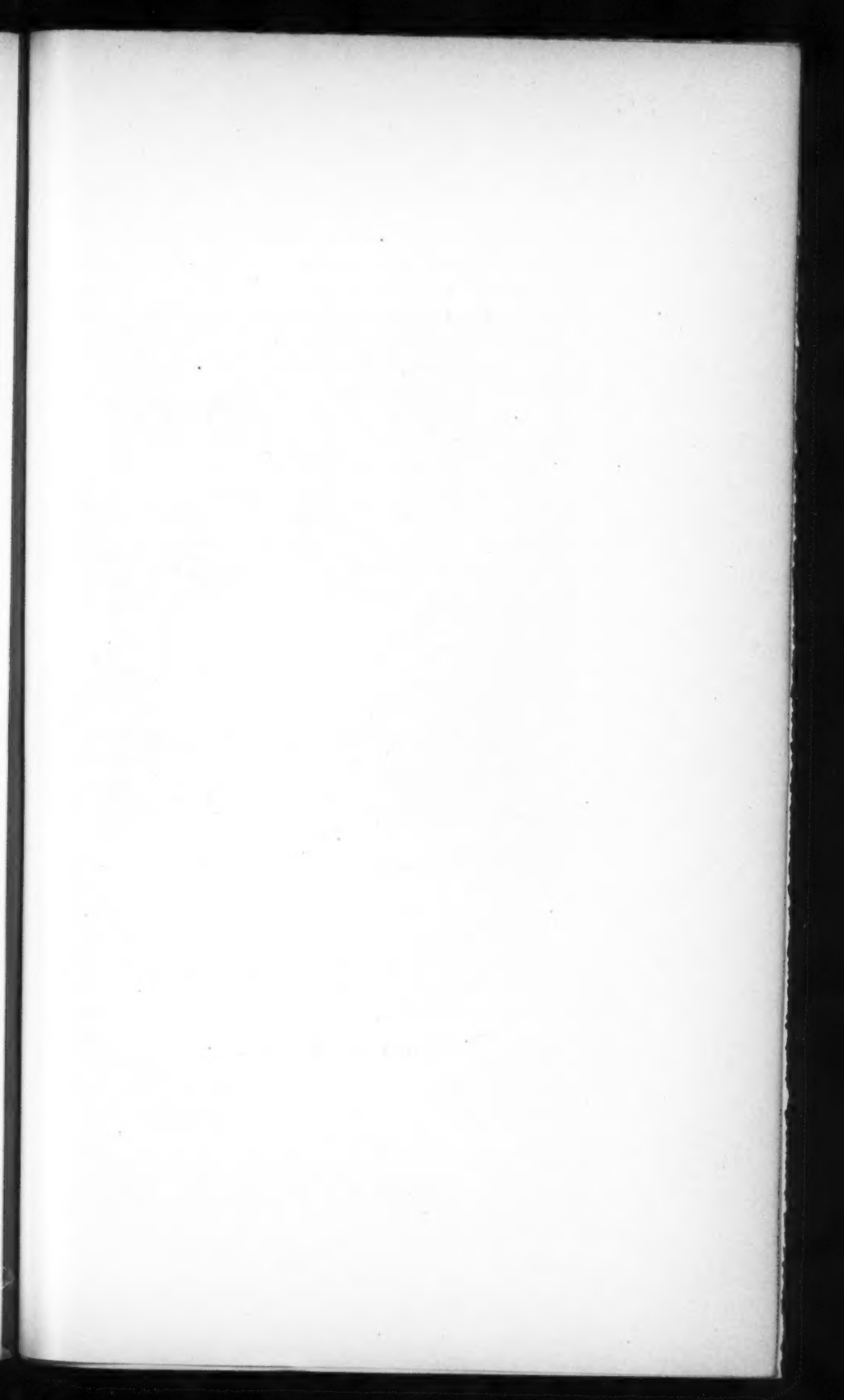
THE Rt. Rev. Abram Newkirk Littlejohn, D.D., LL.D., D.C.L., Bishop of Long Island, and a trustee of Columbia University, died at Williamstown, Mass., August 3, 1901. Bishop Littlejohn was born in Florida, Montgomery county, New York, on December 13, 1824. After the usual school years he went to Union College, Schenectady, was graduated there in 1845, studied for the priesthood, and, three years later, was ordained deacon in St. Peter's Church, Auburn, N. Y. He was advanced to the priesthood in 1849. His first parochial charge was at St. Ann's, Amsterdam, from which he was soon transferred to St. Andrew's Meriden, which he left in 1850 to become rector of Christ Church, Springfield, Mass. This office he held but one year, accepting then a call to St. Paul's, New Haven, where he remained for nine years. In 1858 he was chosen president of what was then Geneva, and is now Hobart College, but he declined the election, saying that he preferred pastoral work. He had already approved his scholarship, however, by lectures in pastoral theology, delivered at the Berkeley Divinity School in Middletown. From New Haven he came in 1860 to the diocese that was to be the scene of his activities for the rest of his life, having accepted a call to Holy Trinity on the Heights, Brooklyn. In 1868, when three new dioceses were created in New York State, he was elected as first Bishop of Central

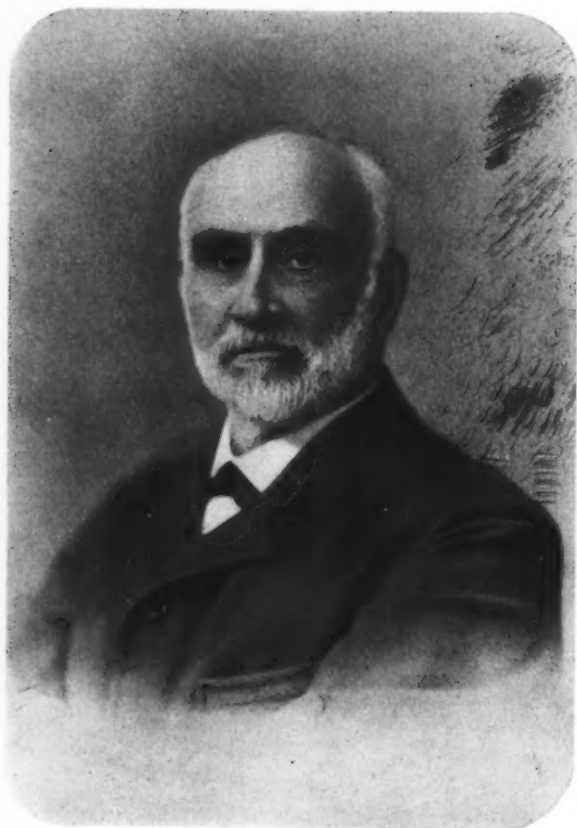
New York, and shortly after to a similar position in the newly created diocese of Long Island. This he accepted, and, in January, 1869, was consecrated to that see in the church of which he had been nine years rector. The consecrator was Bishop Horatio Potter, of New York.

In addition to manifold labors within his diocese, during the thirty-two years of his episcopate, Bishop Littlejohn was appointed, in 1874, to take charge of the American Episcopal Churches in Europe. Thus it fell to him to consecrate St. Paul's-within-the-Walls at Rome, and to open the American Church at Paris. His contributions to theology, published as "Discourses on Individualism," "Conciones ad Clerum," "Christian Dogma Essential" and "The Christian Ministry at the Close of the Nineteenth Century," commanded the attention of thinking men throughout the Anglican communion. The first of them was delivered as a course of lectures at Cambridge, England, and in recognition of their value that university conferred upon him the degree of Doctor of Laws. In 1879 he became a trustee of Columbia.

The Bishop was buried from his Cathedral in Garden City, a large number of clergy attending the service, and subsequently his body was interred in the churchyard of All Saints' Church, Great Neck, beside the grave of his wife, who died two years previously to the death of her husband.

The Bishop of Long Island was recognized by all as the most scholarly of the divines in the Episcopal communion, and his episcopate was marked by the development of charities and academic establishments the most conspicuous of any in the dioceses of our land. St. Paul's School for Boys, St. Mary's and St. Catharine's for Girls, the Church Charity Foundation, providing a hospital, an orphanage, and a home for the aged, the Cathedral and See House, with many newly-organized parishes and missions, are the witnesses of Bishop Littlejohn's faithful work and wise oversight during the years of his episcopate.





THOMAS M MARKOE, M.D.

A learned man, sound in the faith, loyal to traditions, and a conspicuous advocate of church unity, Bishop Littlejohn fulfilled every ideal of the scholarly divine, and, when he died, there passed from us a noble man, and a prince in Israel. Those who knew him best loved him most.

G. R. VAN DE WATER

DR. THOMAS M. MARKOE

DR. Thomas Masters Markoe died at his summer home in East Hampton, L. I., on Monday, August 26, 1901. He was born in Philadelphia, September 13, 1819, and was therefore almost eighty-two years of age at the time of his death.

In these days much is heard of great men who are "self-made," vast importance being attached to this quality, and who are usually great in one particular line only, while comparatively little is said of those men who, of gentle birth to begin with, and with an upbringing amidst the best social and educational surroundings, not only achieve greatness in the line of their chosen profession, but also show qualifications in other lines of thought and action which would seem sufficient, in themselves alone, to distinguish their possessor.

Men who possess all these advantages are not common, and among them stood Dr. Markoe. His father, Francis Markoe, whose ancestor was Peter Markoe, of French Huguenot descent, was born on the family estate in Santa Cruz and was educated in this country, graduating from Princeton College in 1795. A few years later he came to the United States as a permanent resident, living at first in Philadelphia and then removing to New York, where he became a partner in the firm of Masters and Markoe, shipping merchants.

Dr. Markoe's mother was Sarah, daughter of Samuel and Martha Caldwell, the former of whom, a merchant of Philadelphia, was one of the founders of the city troop and paymaster in the continental army.

Ability in scholarship was early shown by Dr. Markoe in graduating from Princeton College at the age of seventeen, and in obtaining at the age of twenty-two his degree of M.D. from the College of Physicians and Surgeons (Columbia University).

A brief analysis of his professional career shows that for such a man success in many directions was inevitable. In hospital work his record is probably unprecedented, serving as he did at the New York Hospital first as interne and then as curator of the pathological museum from 1839 to 1852; then for forty years as attending surgeon, and finally as consulting surgeon from 1892. On his retirement as attending surgeon the governors of the hospital in a series of resolutions referred to his "brilliant professional career," his "unselfish devotion" to the interests of the institution and his "rare skill and judgment"; and also caused to be painted a portrait of him which hangs in the Governors' Room. Among other hospitals which had his services both as attending and consulting surgeon are Bellevue, Roosevelt, Mt. Sinai, Nursery and Child's, Woman's, Orthopedic and St. Mary's.

As a teacher Dr. Markoe was equally prominent not only by his numerous contributions to the literature of his profession, but also in holding professorships in various medical schools, notably the College of Physicians and Surgeons, in which he was professor of surgery from 1860 to 1888, when he became emeritus professor and also vice-president of the college for several years. Previous to his connection with this college he was successively professor of anatomy in the Castleton Medical College (Vermont) and professor of pathological anatomy in the University of the City of New York.

Civil practice alone can not claim Dr. Markoe. During the War of the Rebellion he volunteered as surgeon and served at Fortress Monroe, Yorktown, Fredericksburg and Belle Plain.

In private practice Dr. Markoe's name in New York City was and is almost a household word. Further comment would be entirely superfluous, save the mere statement that he was in partnership at first with Dr. Edward Delafield until 1865, and then with Dr. Frances Delafield until 1882, after which date he was associated with his sons, Drs. Francis H. and James W. Markoe.

Finally, in this consideration of his professional career, we find him not only hospital surgeon, professor of surgery, military surgeon and eminent private practitioner, but also member of many medical societies, among them the Academy of Medicine (of which he was a founder), County Medical Society, Pathological Society, Surgical Society, Medical and Surgical Society, and the Society for the Relief of Widows and Orphans of Medical Men.

Turning now from this necessarily brief account of his purely professional life, we note evidences in Dr. Markoe's mental equipment of that remarkable versatility which made him not only actively interested in the fine arts, general literature and the natural sciences, but also a patron as well as an accomplished interpreter himself of the art and science of music. These evidences are shown by his membership in the Metropolitan Museum of Art and the American Museum of Natural History; by his holding the positions of trustee and president (1891-1895) of the Astor Library, and trustee of the Consolidated Library since its organization; by his participation in the founding of the Musical Club and by his life subscription to the Philharmonic Society, upon the occasion of whose semi-centennial very complimentary reference was made to Dr. Markoe as one of its constant and most distinguished friends.

Membership in the University, Century and Princeton Clubs shows that Dr. Markoe acknowledged the claims of social life upon even such a busy career as his must have been.

In conclusion, the personality of Dr. Markoe was delightful—a kind by no means general among those who are celebrated in their professions—and included not only charm of manner but genuine kindness of heart and uniform courtesy to all. Of these personal qualities as well as of his great ability the writer can speak with knowledge derived from serving a term as house-surgeon under Dr. Markoe at the New York Hospital.

BERN B. GALLAUDET

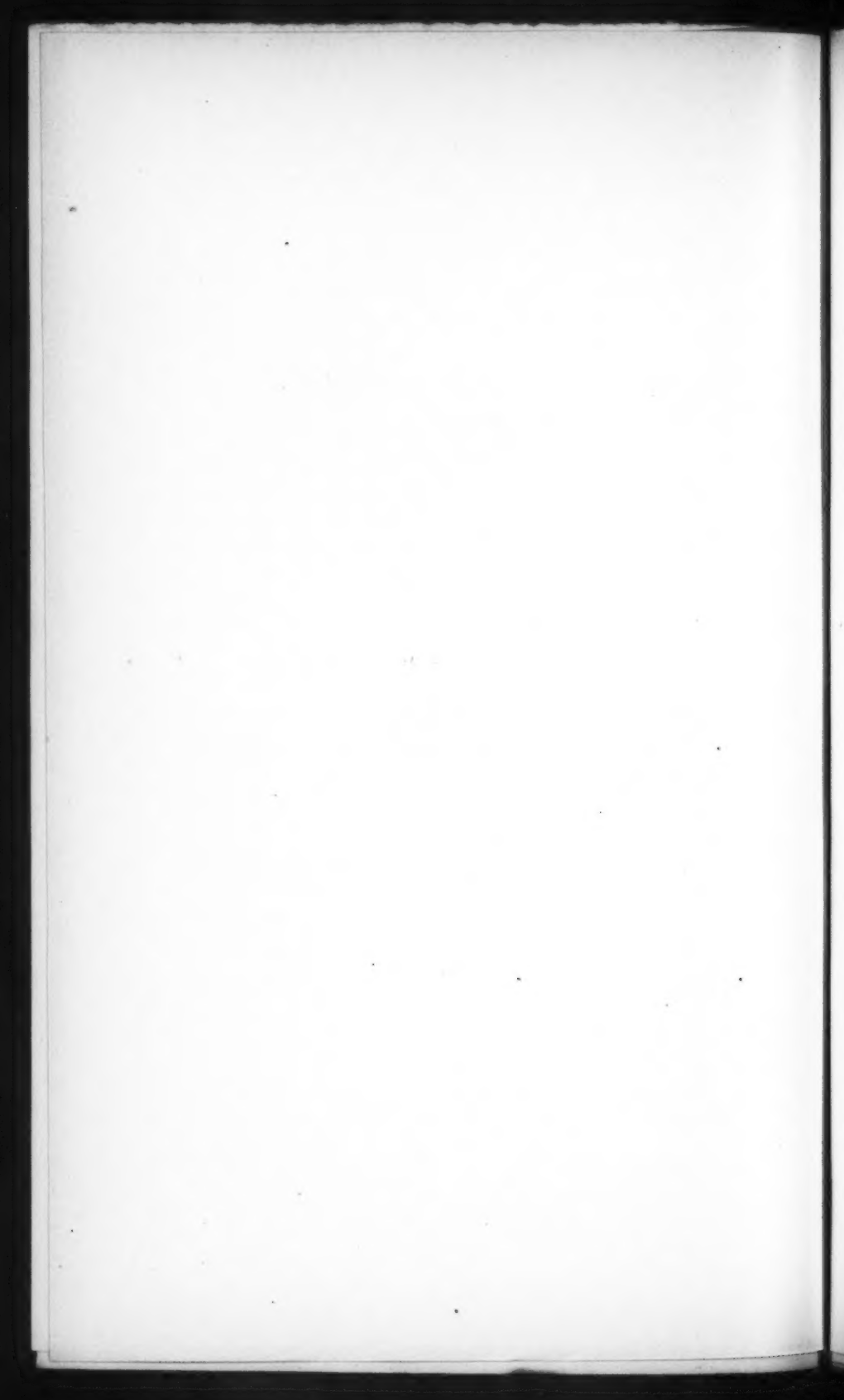
THEODORE G. WHITE

DR. Theodore Greely White, of the class of 1894, who died on the seventh of July last, united in an exceptional degree the qualities of the scientist and the philanthropist, his love for scientific research being fully equalled by his strong humanitarian and religious instincts. Born in Wilton, Connecticut, in 1872, his scientific work was begun some years before he entered college, when in 1885 he organized a chapter of the Agassiz Society among a number of schoolboys and commenced to make geological investigations. Botany and geology were his favorite branches, and after receiving his Ph.B., in 1894, he took a graduate course in the latter subject and lectured in the public schools. In 1895 the University conferred upon him the degree of A.M., and in 1899 that of Ph.D. From 1895 to 1900 he held the position of assistant in physics. While connected with the University in this capacity he had charge of the optical laboratory, and in this new field also he evinced conspicuous ability. "Too much cannot be said in praise of the way in which



THEODORE G. WHITE, PH.D.

CLASS OF 1894.



he equipped the laboratory and carried on the work there," is the statement of one of his associates.

His scientific publications are numerous, and included papers on the Fauna of the Lake Champlain Valley, on the Petrography of Boston Basin, on the Fauna of Oneida County, N. Y.; on the geology of Herkimer, Lewis, Oneida and Essex Counties, and on the Genus *Lathyrus* in North and Central America. He was a member of the Torrey Botanical Club and a Fellow of the New York Academy of Sciences and of the American Geological Society, and was a recognized authority on optics.

Simultaneously with the prosecution of his scientific studies he was actively engaged in parish work in connection with the Church of the Holy Communion, at first as a member of the choir and later as a teacher and organizer. His work was mostly among boys and young men, and for more than ten years prior to his death he conducted a large Bible class. His interest in his boys led him to institute various enterprises, such as classes in mechanical drawing and in athletics, a literary society and various social organizations. Early in 1901, upon the death of his father, he was enabled to carry into operation a long-cherished plan for a boys' club, and with this object in view he leased an old building, No. 127 West 17th Street, and proceeded to fit it up as a social settlement and as quarters for boys' and men's clubs, naming it "Gordon House" in honor of General Charles George Gordon.

It was his intention to equip the house with a gymnasium, a billiard room and with accommodations for classes in manual training, as well as for social purposes. Believing that the boys would best appreciate their new home if the work of renovation was done so far as practicable with their own hands, he encouraged and aided them in the necessary carpentry, plumbing and decorating, and to his over-exertions during the intense heat of the early summer his fatal illness is largely attributable. He had provided

for the fulfilment of his purpose by placing a considerable sum in the hands of trustees to be held as an endowment fund, but the deprivation of his earnest and sympathetic personality is an irreparable loss to all who were interested with him in the foundation of Gordon House, as well as to his associates in St. Andrew's Brotherhood, and in the broader fields of philanthropic work in which he was engaged. Had Earl Hall been established a few years earlier, or had Dr. White entered college somewhat later, he would undoubtedly have contributed to its effectiveness, and his life, though so prematurely ended, is a perfect realization of the ideal for which Earl Hall is intended to stand, "to the end that religion may go hand in hand with learning, and character grow with knowledge."

JOHN B. PINE

EDITORIAL COMMENT

It was with mingled regret and satisfaction that Columbia men watched, during the latter part of September, the political developments which were evidently leading to the choice of Seth

Ex-President Low

Low as the standard-bearer of the anti-Tammany alliance. Not without dismay could we face the prospect of losing the president who had done so much and been still more for the University. *Quando ullum inveniet parem?* was the query that came to every mind, and perhaps there were some who were inclined to dissent from Mr. Low's own conception of his duty. On the other hand, it could not but be a source of gratification to us all that the choice of the allies should fall, as by an irresistible logic, precisely upon him. Columbia men are New Yorkers, by birth or by adoption; they have their pride in the city, their love of the city, and they knew that the mayoralty of Mr. Low, should he be elected, would redound to the honor and distinction of New York. His very name contained the promise and the potency of an administration conducted in accordance with the highest ideals of public spirit and of public duty.

And now he has been elected; Columbia loses a president, and New York gains a mayor who is preëminently fitted for that high responsibility. We look forward with hope and confidence to his administration, seeing in his election not only the earnest of a better immediate future in New York politics, but a message of good cheer to all Americans everywhere who are working for the good government of cities. Elsewhere in this number of the *QUARTERLY* will be found articles which treat of Mr. Low as a personality and of that remarkable chapter in Columbia's history with which his name will be forever associated. And fortunately the chapter of his influence is not yet closed. Though lost to us as president he remains a trustee, and will thus have abundant opportunity to make his knowledge and experience tell effectively for the welfare of the University. This being so Columbia can all the better afford to think less of its own loss than of the larger gain which is involved not so much in the good prospect of the next two years as in the added prestige and momentum given to those ideals of citizenship and public service which it is the highest function of colleges and universities to inculcate.

At a meeting of the Trustees, held on October 7th, the resignation of President Low was tendered and accepted, and Nicholas Murray Butler, Professor of Philosophy and Education and
Acting President Dean of the Faculty of Philosophy, was appointed Acting President, to serve until the
Butler further order of the Board. Professor Butler was graduated from the College in the class of 1882, received the degree of A.M. in 1883, that of Ph.D. in 1884, and in 1898 was honored by Syracuse University with the degree of LL.D. He is widely known as a philosophic student of education, as an energetic worker in various educational bodies, notably the National Educational Association, and as a broad-minded writer and speaker on educational topics. His appointment to the acting presidency of the University was a well-earned recognition of his wide acquaintance with modern education in all its phases, his conspicuous administrative ability and his catholic sympathy with all branches and departments of university teaching. With these advantages he combines that of being thoroughly familiar with the history of Columbia.

Certainly no one else could have been found so well fitted to take up, at a day's notice, the administrative office resigned by President Low; and it is thus hardly more than a formal work of supererogation on the part of the *QUARTERLY* to bespeak for him, as the temporary head of the University, the cordial support of all Columbia men. It is his good fortune that the machine as such is running smoothly. Difficult questions of policy, of organization, of expansion, are not in sight. The most serious problem confronting the governing body is that of raising, each year for a few years to come, a sum of money sufficient to offset an annual deficit which will presently disappear. Of this problem we speak more specifically below.

In January last, President Low, with the concurrence of the Trustees, issued a statement of the university debt and asked for subscriptions to meet the current interest charge until the debt

The Interest Fund

can be discharged or until the corporation shall benefit by the increased rental from the leaseholds which will be renewed eight years hence. Inasmuch as the interest charge now amounts to \$101,983 yearly, and as it is desired to provide for the payment of it for eight years, it will be seen that a very large amount is required. It is, therefore, particularly gratifying to learn from Mr. Low's annual report that a fund has been raised sufficient to completely offset the interest charge for the current year. It may also be stated that there is good reason to believe that many of the subscriptions will be continued from year to year until the obligation is discharged or otherwise provided for. This circumstance, coupled with the fact that the deficiency in the educational account of last year is only \$8,221, as against \$17,328 for the preceding year, and as against \$43,347 for the year before that, is good cause for congratulation; and the president's summary of gifts for the year, which we append below and which does not include subscriptions yet to be paid, is likewise a cheering indication. The list is as follows:

Gifts and bequests for the creation of trust funds.....	\$113,305.79
Gifts for permanent investment at the new site.....	139,188.75
Gifts for the General Guarantee Fund, 1899-1900.....	26,750.00
Gifts for the Interest Fund for 1900-1901.....	33,250.00
Gifts for designated purposes.....	41,625.00
Total.....	\$354,119.54

There are men still living who will see in Mr. Low's argument in favor of dormitories a change of heart on his part as complete as it is satisfactory, but the warmth with which he urges the need of these buildings proves the thoroughness of his conversion and adds weight to his words. We quote from his last report:

Dormitories Once More "The most immediately helpful form in which a building can be presented to the University at the moment, is in the form of a dormitory to be placed upon the Green. Such a building will cost from \$175,000 to \$225,000. I have already pointed out why dormitories seem to be desirable from the point of view of the College, in view of the fact that the College, almost unawares, has been changed, within the last thirty years, from a small local college to a college that is national in the area from which it draws its students, and which is rapidly growing in size into the companionship of the larger colleges. It remains to be said, that, in the judgment of those who are engaged in teaching at Columbia, dormitories are equally desirable as a means of developing at the University a center of literary and scholarly life."

"There is one other thing to be said for the gift of a dormitory, which, under existing conditions, has for us special importance. Every other building increases the expenses of the University. A dormitory will add to its income. It will add to the income of the University not only directly, by the amount which it produces in excess of the cost of administration; but dormitories undoubtedly will add, indirectly also, to the income of the University, by increasing the number of students that will be drawn to it. When Columbia is able to add the privileges of convenient residence at or near the University, for a charge comparable to the charge made elsewhere for similar privileges, to the advantages that it already offers by reason of its location in the City of New York and its strong equipment, there is almost no limit to the number of students that can be brought to its doors. It is entirely practicable to accomplish this result. By the erection upon the Green of the few dormitories which it will conveniently hold; and by the erection, in the neighborhood of the University, of one or two large buildings, large enough to permit each room to be rented cheaply, Columbia can be placed

in a position to open its really great advantages to the many graduates throughout the country who would gladly come to it except for the item of expense. For all of these reasons I am persuaded that dormitories for Columbia are greatly to be desired, and I hope that one or more will be given to the University in the near future."

The last annual report of the president calls attention also to the fact that the College had last year 476 students, the largest number in its history, and that in this body twenty-four states were represented; 162 students coming from outside the city of New York. The significance of these figures is brought out by comparison with those of 1870, for instance, when Mr. Low graduated, at which time there were, all told, only 129 students in Columbia College. Of these 114 came from New York, and 15 from New Jersey. The contrast justifies the president's assertion that whereas the College was formerly a local institution it has now become national in character. This change he attributes "to the increasing reputation and prestige of the University, to its own enlarged and more flexible curriculum, and to our removal to the new site"; and he makes an earnest appeal for a hall adequate to supply the new demands of the College. He says:

"The building that serves as its headquarters is one of the old buildings that were upon the site when the University purchased it. This building was never adequate for the purpose, and now it has been altogether outgrown. From the point of view of sentiment, also, there should be a College Hall which will worthily hold the life out of which the entire University has sprung. The Trustees have assigned the southwest corner of the grounds, on the corner of 116th Street and Broadway, for the College Hall. Drawings have been approved which will show to anyone who may be interested the kind of building that is desired. Its estimated cost is \$400,000. I hope that this need will not go long unmet; for it is a pressing need. Such a need on the part of the old College that has done so much for the City of New York ought to appeal irresistibly to some one of the many generous givers in our city."

The general index to the first fifteen volumes (1886-1900) that has recently been published by the *Political Science Quarterly* is a very gratifying evidence of substantial work accomplished

A Highly Creditable Record in connection with the development of the university spirit at Columbia. It is not every periodical that is worth indexing, even in the judgment of its editors and publishers, and for very few indeed has the work been done on so elaborate a scale as characterizes that of the *Political Science Quarterly*. The confidence felt by the editors and publishers in the desirability of an index received signal confirmation in the fact that almost simultaneously with their own appeared the revision of Poole's great index of periodicals, in which the *Political Science Quarterly* was one of the thirty-seven retained out of the enormous number in the original Poole.

Columbia was the first of the great American universities to put forth a periodical in the field of political science. Since the Faculty of Political Science started the *Quarterly*, magazines covering the whole or part of the same subjects have been established at Harvard, Yale, Chicago and Pennsylvania. Princeton was earlier in the field with the *New Princeton Review*, but this did not pretend to confine itself to political science, and, wide as it was in scope, it was absorbed by the *Political Science Quarterly* in 1889, when the latter was but three years old. It is interesting, also, that the editor of the *New Princeton Review* has since become a member of the Faculty of Political Science and hence an editor of the *Quarterly*.

The policy of the *Political Science Quarterly* is shown by the index to have been directed toward the treatment of all the great topics of political interest in a conservative and scholarly way. Its list of contributors includes a large array of names prominent in social, juristic, economic and historical science. Many foreigners appear, and this fact confirms what is otherwise well-known, that the *Quarterly* has performed a goodly part in the work of winning for Columbia a reputation, both at home and abroad, for high standards in progressive scholarship.

THE UNIVERSITY

The University has lately published a handbook giving fourteen photographic views of the buildings and grounds and a general statement of its educational work. The pamphlet was intended primarily to be distributed at the Pan-American Exposition as a souvenir, but a special edition has been printed for free distribution in the office of the secretary.

* * *

At the annual meeting of the Trustees of the University Press, held November 26, 1901, the following gentlemen were elected editors of the *UNIVERSITY QUARTERLY* for the year 1901-1902: from the College, Professor C. H. Young; from the Faculty of Law, Professor G. W. Kirchwey; from the Faculty of Medicine, Professor F. S. Lee; from the Faculty of Applied Science, Professor A. D. F. Hamlin; from the Faculty of Political Science, Professor W. A. Dunning; from the Faculty of Philosophy, Professor G. R. Carpenter; from the Faculty of Pure Science, Professor Bashford Dean; from Teachers College, Professor J. E. Russell; from Barnard College, Professor M. L. Earle; from the University Press, John B. Pine, Esq.; from the Library, Dr. J. H. Canfield. Professor Hamlin was elected managing editor.

* * *

On looking over the names of those who were honored by Yale at its recent celebration, we observe with satisfaction that Columbia fared relatively very well indeed. Of sixty-two honorary degrees conferred, six fell to men connected with this University. Two went to members of the corporation, Mr. Low and Bishop Potter; three went to Professors Rood, Matthews and Moore, and one to Rev. Dr. Hall, a member of the University Council. As against this total of six to Columbia, four went to Harvard, three to Johns Hopkins, and two each to Princeton and Chicago.

* * *

The last annual report of President Low differs from its predecessors in one important particular, namely, the incorporation therein of an elaborate report of fifty-odd pages by the registrar. The report consists of various statistical tables, the bulk of it

being taken up with statistics of registration which show the attendance upon each and all the courses given in every department of the University during the year 1900-01. The labor involved was enormous and difficult, and we congratulate the registrar on his achievement.

* * *

An event of much more than passing interest to all Columbia men is the recent organization, in New York City, of a Columbia University Club. The desirability of such an institution, to meet the social needs of the numerous Columbians who live or do business in the city, has long been felt and has been the subject of much informal discussion. We greet the new enterprise with satisfaction and hope that it may prosper to the advantage of its members and of the University. The club has established itself at 41 West 36th Street. A somewhat detailed account of the organization, which reaches us too late for this issue of the *QUARTERLY*, may be expected in the next number.

UNIVERSITY COUNCIL

At a special meeting of the University Council, held October 12, 1901, a minute suggested by the resignation of President Low was submitted by a committee previously appointed for the purpose—the committee consisted of Professors Burgess and Hutton—and unanimously adopted. After reciting graphically the growth of Columbia during Mr. Low's administration, the minute closed with the following personal tribute:

"But Mr. Low brought to the solution of the problems of the University qualities even more important and needful than these intellectual powers. First and highest among these qualities, and most indispensable, was the power to win and to hold the full and unwavering confidence and the cordial and zealous co-operation of all his colleagues, a power which can come only from an innate love of truth, joined with an open mind, a high sense of justice, unbending integrity, kindness of heart and genuine deference in manner. Every officer of the University felt that his interests and the interests of his department were safe in the hands of Mr. Low, and that no occult influences would ever be allowed to prevail in the administration of the affairs of the institution. It is the recollection of these rare and

invaluable traits, even more than of his administrative abilities, which makes the parting with him so hard and regretful, and which moves this Council to express the hope and wish, for itself and for the bodies represented in it, that from his seat in the Board of Trustees of the University Mr. Low may still continue to manifest his old interest in the development of the University and may still exert his great powers in the promotion of its welfare."

"Though conscious that these words do not express with any adequacy the feelings of the members of this body concerning the obligations of the University and all of its officers to Mr. Low, and their deep regret at his retirement from the presidency, yet your committee would beg to recommend that the minute be spread in full upon the records of the University Council, and that the Secretary be directed to transmit a copy of it, with a suitable letter, to Mr. Low."

RELIGIOUS INTERESTS

Chapel Service.—Beginning with Monday, October 7th, on which occasion President Low was present and gave a brief farewell address, the usual services have been held daily. As hitherto the room assigned for this purpose is room 305 Schermerhorn Hall. In his last report to the trustees, President Low drew attention particularly to the pressing need of a chapel building. Until such a building is provided it is a pity that we can not have a room exclusively devoted to religious services. The influence of association is wholly wanting now that men worship in a room which at all other hours is used for lectures and recitations. The chaplain is giving instruction in "The Great Religions of the World," and has arranged for fortnightly addresses by various professors, the speakers for the first half-year being as follows:

Oct. 7, PRESIDENT LOW,
Oct. 23, DR. CANFIELD,
Nov. 6, ACTING PRESIDENT BUTLER,
Nov. 20, DEAN VAN AMRINGE,

Dec. 4, PROFESSOR SLOANE,
Dec. 18, DEAN RUSSELL,
Jan. 8, PROFESSOR REES,
Jan. 22, PROFESSOR GIDDINGS.

Everything is done to make the brief daily service inspiring and devotional, and, while attendance is voluntary, it does not seem unreasonable to expect that those who profess to be Chris-

tians will frequently, and that all who believe in God will occasionally, be present at the chapel exercises.

It would be well could we consolidate the several chapel services now held in the neighboring coördinate schools or colleges of the University into a single daily service, held at an hour most convenient to all; for in this way we should secure a much larger attendance, and what is even more important, the University might be made thus to feel in a new and visible way its essential oneness.

The ideal will be approached only when, in a distinctive chapel building, at an hour most convenient to all, Columbia University, so to speak, will be engaged in worship, praising God for His goodness, and asking for a continuance of His blessing. The first step toward this, so desirable a consummation, is that some man endowed with wealth shall see the need and provide a chapel.

Young Men's Christian Association.—In anticipation of their new home in Earl Hall the members of the Young Men's Christian Association have been actively engaged in the work of that organization. Through the kindness of the university authorities, two very desirable rooms in University Hall were placed at their disposal. During the week of examination for the incoming class, and during the first ten days of the academic year, these rooms were kept open and used as the headquarters for the Association and the information bureau. A large number of new students visited the rooms and availed themselves of the privileges offered.

The official boarding-house list prepared by the University was turned over to the Association, and several hundred students were in this way assisted in getting desirable rooms.

A reception was held during the first week of the year, at which the captains of the various athletic teams, the leaders of the literary and debating interests, also a representative of Earl Hall, made addresses. Refreshments were served after the program, and a very pleasant half hour was spent in a sociable way.

A mid-week religious meeting has been held, with an average attendance of sixty. These meetings have been very helpful to the students, and are expected to be held each week of the year.

Two Bible classes have been organized and are now in running order. Plans for the third have been partly completed. Class A is in the Life of Christ; Class B in the Acts and Epistles. Class C will be for the law students; the subject is not yet chosen, but will be on that portion of the Bible which will most interest law students.

Until Earl Hall is finished the two rooms in University Hall will be used as the office of the Association and as a reading and study room for all students.

THE GYMNASIUM

TO THE EDITOR OF THE QUARTERLY:

Sir:—An editorial in the *New York Times* last July on the subject of swimming has led several to inquire what Columbia is attempting in this sort of teaching. The article gave a true statement of the case in saying that a large number of men and women cannot sustain themselves in the water, but we may also say with assurance that these same men and women, could they receive proper instruction, would in most instances master this accomplishment.

No pupil in our experience has failed to learn to swim after he has come under the instruction of the department. Sometimes it has required a great deal of time and patience. The student, perhaps, has been markedly lacking in coördination; he has had a high degree of nervousness and found it difficult to gain confidence and self-command. Then there have been cases of deformity or organic lesion which precluded any exciting exercise and made it all the harder to accomplish the end in view.

From the result of recent tests in psychology we may expect these conditions to be more common in women than in men, and the difficulty in learning to swim will be found correspondingly greater in the female pupil. On an average, eight lessons are sufficient for men to acquire some skill in handling themselves in the water, while women find ten lessons necessary to become fair swimmers.

Swimming is one of the required exercises of the freshman and the first-year Science classes at Columbia. On a canvass of these students each year we find that 28% of the College men require this instruction, while the smaller portion, 26%, of the

Science men have not learned to swim. I attribute this disparity to the difference of ages, for the Science students average a year and a half older than those in the College. These men report in squads of eight until they have learned the plain breast stroke and swimming upon the back. This instruction occupies the first half of each year until all have learned to swim and return to their gymnasium work on the main floor. The necessary lessons to teach the men in squads of this size for half an hour a day are on the average twelve, and in only one instance have these lessons numbered twenty-four. It is interesting to note that the learner in this case was handicapped by deformity; yet his perseverance stood him in good stead, for he succeeded well enough to figure in saving a friend from drowning last summer.

The women students of the University were admitted to the gymnasium last winter for two evenings a week, and seventy-nine of these took swimming lessons. Out of this number, twenty-eight completed their course, and the others hope to continue their lessons this winter. The pool was in almost constant use during the brief summer session, and in this time twenty-nine women and seven men succeeded in mastering the stroke, out of the eighty-five who made use of the pool, bringing the total number of persons who have learned to swim during the past year to one hundred and twenty-three.

In addition to this elementary work a great many lessons have been given other students in advanced swimming, diving, and life-saving methods; so that I think it may be said, inferring from this record, that the swimming pool has been a valuable factor in the University work and that Columbia is doing her share in making her students familiar with the art of swimming.

Respectfully,

W. L. SAVAGE

THE SUMMER COURSES IN PURE AND APPLIED SCIENCE *

Chemistry.—The summer school in industrial chemistry, under the direction of Professor Pellew, was given as usual this year, during the week preceding Commencement, and proved to be extremely interesting.

*The instruction described under this head, being given at various points more or less distant from New York, must be understood as separate and distinct from the scientific courses offered at the regular summer session of the University on Morningside Heights.

On Monday, June 3rd, the students assembled in the morning at the Color and Paint Factory of Messrs. D. F. Tiemann & Co., on West 125th St., where Mr. Tiemann himself conducted them through his works and showed them the methods of preparation of mineral pigments, and of some dyewood lakes. In the afternoon they met at the Consolidated Gas Company's works, in West 16th St., where they studied the earlier processes of coal-gas manufacture, under the personal direction of Mr. Oscar Boedelsen ('84, School of Mines), now assistant superintendent of the company.

On Tuesday, June 4th, they spent the morning at the Colgate Soap Works in Jersey City, where Mr. Austin Colgate very kindly explained the various processes of soap-making to them. Later, the party went to Newark, N. J., and spent the afternoon in the beautiful new paint factory of Lewis Berger & Co. This visit was one of the most interesting ever made by the students of the School of Chemistry, for the factory is very modern and up to date in its equipment, and very carefully planned; while the work done, the manufacture of lake pigments from various coal-tar dye-stuffs, is one of the latest and most interesting developments of modern chemistry. The officers of the company were extremely kind in showing the party the various processes, both in the works and in the large and well-equipped laboratory attached to it.

On Wednesday, June 5th, an all-day trip was made to Glen Cove, L. I., to visit the Starch and Glucose Works. Entrance to these works is, as a rule, strictly prohibited, but through the kindness of Gen. Hiram Duryea, the students were made welcome and shown all the processes, not only of making starch, glucose, and grape sugar, but also of working up the various by-products.

Thursday, June 6th, was spent in Brooklyn. In the morning the party visited the Bushwick Glass Works, through the kindness of Messrs. Wm. Bromfield & Co., and saw there the latest and most improved methods of making bottle glass and glass carboys in large quantities, by the use of the Siemens tank furnaces. In the afternoon they went to the factory of Mr. Franklin H. Kalbfleisch, where they studied the manufacture of pure sulphuric acid from Sicily sulphur, and also of nitric acid, sodium sul-

phate and other allied chemicals. This visit was very interesting because the works, while very carefully planned and managed, were so small that the students could grasp the important process of making oil of vitriol without much difficulty.

On Friday, June 7th, the party met in Passaic, N. J., and were shown through the Algonquin Woolen Mills, by the kindness of Mr. Winthrop Cowdin. This gave the students a good opportunity to view the preparation of raw wool and shoddy, the spinning, weaving and dyeing of the raw material, and the various processes for finishing the woven product. The afternoon was spent at the Passaic Print Works, where the superintendent and chemist both took the party over the mill, and showed them the various methods for bleaching, printing and finishing calico goods.

The last day, June 8th, was spent in finishing the study of illuminating gas. In the morning the students visited the Consolidated Gas Company's works in East 26th Street, and examined the methods of producing water gas, and later in the afternoon they went to the neighboring gas works in East 14th Street, and saw the operation of the mechanical stokers and mechanical dischargers, in manufacturing coal gas after the most modern methods.

This ended the regular work of the summer; but a more informal close was given it in the form of a reception to the graduating class of the School of Chemistry, which was held at the house of Professor Chandler that evening and proved extremely pleasant to every one concerned.

The summer course, as usual, was attended not only by the regular second and third year students of the School of Chemistry, but by several special students, who seemed greatly to appreciate the opportunities offered to enter factories and study processes usually kept strictly private. The party was also accompanied by enough officers of instruction so that the students were able to profit by their opportunities.

Geodesy.—The geodetic summer course was given as usual at Osterville, Mass., from June 3d to July 13th. The party consisted of twenty persons, and was in charge of Professor Harold Jacoby, assisted by Dr. W. C. Kretz, who replaced temporarily

Dr. S. Alfred Mitchell, absent on the U. S. eclipse expedition to Sumatra. The additional assistants were Messrs. R. E. Dougherty, C.E., and O. L. Brodie, C.E. With the help of these gentlemen the work was completed satisfactorily within the usual time limits.

The new base-measuring arrangements reported upon last year have been modified somewhat, as the authorities would not again permit the use of public property for the execution of our base-measures. A new place for this work was therefore selected, and new permanent monuments were built. The present site is on private property, and can probably be used for many years.

The professor in charge of this course ventured a year ago in the *QUARTERLY* to "direct particular attention to the question of providing an adequate supply of instruments." Nothing having been done in the matter, he desires to refer again to his former report. Fortunately, in 1901, the class was somewhat smaller than usual; but next year we shall have the largest in the history of the school, and the lack of instruments will be felt more than ever. This practical summer work is really one of the things most useful to the civil engineers in equipping them for their future career; even the students themselves attach great value to it, and make strenuous efforts to learn all they can during the six weeks at their disposal. Those among them who are condemned to use our oldest instruments, that have been handled by successive generations of students for twenty years, rightly make complaint. There can be no doubt that the summer course in geodesy, important as it is to undergraduate engineers, should be equipped with instruments of the latest form, and embodying the latest improvements.

The school this year had the pleasure of a visit from Professor Rees, head of the astronomical department, who expressed himself very favorably as to facilities and arrangements for our work at Osterville.

Geology.—The geological department conducted two summer courses during the vacation. The first, in the Hudson valley, was divided into two parts. Immediately on the close of examinations, Dr. Julien guided a party over the Cortland series of

eruptive rocks just south of Peekskill. After spending three or four days in this region, the party proceeded to Rondout and passed under the charge of Mr. Van Ingen. They then studied for a week the folded rocks along the Hudson at this point and in the valley of Esopus Creek.

The second course was given in connection with the summer course in mining. Dr. Grabau met the party at Marquette, Mich., the second week in July, and passed about ten days with them in the study of the Archean, Algonkian and Cambrian strata in that vicinity. The class then dispersed to their homes. On the conclusion of the regular summer session, Dr. Grabau, accompanied by Mr. Shimer, newly elected assistant in palæontology, began field work in the lower peninsula of Michigan, under the auspices of the Michigan Geological Survey. They spent the remainder of the vacation in this work and in additional observations in the western part of New York and the neighboring portions of Ontario.

Metallurgy.—The vacation courses in practical metallurgy are intended primarily for students enrolled under the Faculty of Applied Science, who are candidates for degrees in metallurgical mining and mechanical engineering; the attendance upon them is practically confined to such students. The aim of the regular lecture courses is to supply the fundamental theories and principles of metallurgy; the laboratory courses permit the students to demonstrate to their own satisfaction at least a part of these theories and principles, while the summer school shows their successful application to commercial work—a point in the education of men for technical positions whose importance needs no emphasis at Columbia.

The summer work is done by two sections, which take up the study of ferrous and non-ferrous metallurgy respectively; mechanical engineers are required to attend the former, mining engineers the latter, and metallurgical engineers both sections.

In the session of 1901 this distinction was not so sharply drawn as usual, as will be seen from the following schedule:

Date	Subject	Works of	Location	Taken by
May 29	Copper, Lead, Gold and Silver.	American Smelting and Refining Co.	Perth Amboy, N. J.	Section 2
" 30	"	"	"	"
June 3	Iron and Steel.	Penn. Steel Co.	Steelton, Pa.	Secs. 1 and 2
" 4	"	"	"	"
" 5	"	"	"	Section 1
" 6	"	Maryl'd	Sparrows Point, Md.	"
" 7	"	"	"	"
" 8	"	"	"	"
Oct. 4	Zinc and Spiegeleisen.	New Jersey Zinc Co.	Newark, N. J.	Section 2
" 5	Lead, Gold and Silver.	Balbach Smelting and Refining Co.	"	"

Attendance: metallurgists, 2; mining engineers, 20; mechanical engineers, 14.

The work was in charge of Mr. W. A. Bentley, of the department of metallurgy, assisted by Messrs. E. J. Hall and J. A. Meehan. The department desires to acknowledge the uniform courtesy shown to its officers and students by those in authority at the plants studied, which has made possible to our undergraduates this view of the practical side of metallurgy.

Mining.—The usual summer class in mining was held this year in the iron and copper districts of the northern peninsula of Michigan. During the first part of the session, lasting about four weeks, headquarters were established at Ishpeming, one of the important centers of the Marquette iron range. Here the students began their work by studying in detail the plant and methods of mining at the interesting soft and hard ore mines of the Pittsburgh and Lake Angeline Iron Company. Mine surveys, each lasting one week, were made also by the several squads of students. The class afterward went underground at the Barnum mine, and visited the surface plants of the Salisbury and Cleveland Lake mines, of the Cleveland-Cliffs Iron Company.

The last week of the session was spent in the copper region on Keeweenaw peninsula. Here the students had the privilege of going underground in the Quincy and Atlantic mines, the

former being 5,600, and the latter about 2,700 feet deep. They also visited the great surface plants of the Calumet and Hecla and Tamarack mines, the Quincy and Calumet and Hecla concentrating mills, and the Dollar Bay smelting and copper wire-drawing works.

Fifteen students attended the summer class, which was in charge of Adjunct Professor Peele, assisted by Messrs. C. K. Hitchcock, Jr., and A. L. Queneau. Several other members of the third and fourth classes, who had had previously some experience in practical mining, made independent trips during the summer vacation.

Surveying.—Eleven years ago the summer school of surveying was located at Camp Columbia, near Morris, Litchfield Co., Conn. Each succeeding year has witnessed the return to this camp of the students who are registered in the courses of mining and civil engineering, to learn the theory and best methods of surveying in that most practical way—the actual performance of surveys in the field.

All graduates and friends of the University will be glad to know that the attendance during the past year was the largest in the history of the school. One hundred and twenty-five students were present during the session. Of this total, one hundred and nineteen students were in camp simultaneously during the months of July and August. Fifty-three regulation wall tents furnished rooms for the students. Meals were served in the large dining-room in the headquarters building, in which were also situated the rooms and offices of the instructors, the instrument room, the store room and the kitchen. The large instrumental equipment, owned by the University, was not equal to the demand upon it. Some new articles were purchased, but extensive additions remain to be made before another year. The seating capacity of the dining-room was reached. The accommodations at the wash-house and shower baths were entirely inadequate to meet the constant requirements of so many men. The season itself was unusually wet. This fact was a source of both gratification and regret. Damp weather does, to a certain small degree, interfere with the regular field practice, although it takes something more than a cloud to drive the men in from their

work. On the other hand, the question of maintaining an adequate water supply at Camp Columbia has, in previous years, given great anxiety, that too when the demands upon it were less than they were this summer. It must be added that this anxiety was in no sense due to the quality, only to the quantity of the supply. This question and others connected with the administration of the school may, in view of the probable still greater increase in attendance, require a change in its location in the near future.

The table below, which shows the registration for the past four years, will enable one better to understand how large the increase has been. The last column is given to indicate the probable attendance next summer. The estimate is conservative and is based upon the present registration in the courses of mining and civil engineering. Besides these regular students we always receive applications from men, not registered at Columbia, for entrance to these classes. Not a few have come from men holding responsible positions in the faculties of small colleges who wish to add a course in surveying to the present list of subjects offered by them in their institutions.

Year	1898	1899	1900	1901	1902
Attendance.....	59	96	92	125	207
Increase per cent. over 1898.....		63	56	112	251

By many of the readers of the *QUARTERLY* the real character of the instruction given and of the work done at the summer course is probably not understood. The space here available is not sufficient to warrant an explanation. It could only be of the most general character and would, therefore, lose its greatest significance. Those specially interested will find detailed information in the circular of the School, which may be had at the office of the secretary, or by direct application to Professor Lovell. Suffice it to say that it is the policy to leave no uncertainty in the minds of the young men, who are required, in parties of two or three each, satisfactorily to complete each of the various surveys before they are recommended for graduation from the University. Approximately fourteen weeks' time, extending over parts of two or three summers, is sufficient for the completion of the entire work done at the Summer School of

Surveying. The method of organization and instruction furnishes an incentive for earnest work by each student. The successes which mark the efforts of our young graduates, in both field and office, are additional incentives for each to make the most of his time. That they have a true appreciation of their opportunities is best shown by the manner and spirit in which they take up the work.

The summer of 1901 witnessed an unusual manifestation of loyalty to the School and to the interests of the University. One hundred and twenty men living together day and night for six weeks came to know each other thoroughly. Their sympathies and common interests were aroused. True college spirit among them grew strong. Perfect coöperation and good-will to all, on the part of every one in camp, made the summer pass pleasantly alike to instructors and students. All those who return next year with the good of the School at heart will hope to see this spirit remanifest itself and become an established part of the life of the camp.

Mr. A. Black, instructor in civil engineering, and Mr. M. S. Falk, tutor in civil engineering, had direct oversight of the instruction and field work of courses 16 and 15 respectively. To them and to the able assistance of Messrs. R. E. Dougherty, O. L. Brodie, A. J. Roell and M. Zipser, all graduates in civil engineering at Columbia, is due, in very large degree, the success which characterized the work. The general supervision and management of the School was in charge of Professor Earl B. Lovell.

SCHOOLS OF APPLIED SCIENCE

School of Architecture.—The School opens the twenty-first year of its existence with a larger enrollment of new students than has been recorded before since the present curriculum and standards of the School went into effect. Twenty-eight are registered in the first-year class, a number of whom are taking second-year studies in part, and there are five new special students. There are also two College students taking studies in the first-year class; a total of thirty-five new names. Last year there were eighteen new students in the regular course and five special students. The increase in the enrollment of new students who are candidates for a degree is thus sixty per cent.

More important than this numerical gain is the increase in the proportion of graduate students and of college undergraduates, coming with the experience of from two to four years of academic studies before entering upon their professional course in architecture. Nine of the twenty-eight names on the first-year roll are of graduates of Harvard, Yale, Princeton, Johns Hopkins and Lake Forest universities and the University of North Carolina. To these may be added Leland Stanford Jr. University, represented by one undergraduate. This accession of university men, most of whom are taking advanced work in place of elementary studies already covered in the University before coming here, is a distinct gain to the School. It emphasizes the fact that the course in architecture is in its general character in reality a graduate course, and helps to maintain those high standards of scholarship and liberal culture which the School is endeavoring to establish.

There have also been admitted as regular students to advanced standing two of last year's special students. These and like cases occurring almost every year, justify fully the position taken by the trustees and faculty with reference to special students in architecture. Only men of several years' experience as draughtsmen in offices are now admitted to the privilege of special study in purely elective courses; and these, coming to us with superior qualifications on the professional side, are encouraged to make up any deficiencies in the requirements for admission that may stand against them and to pass all the examinations requisite for enrollment in advanced standing. Some of the best men who have graduated from this School have entered the regular course in this way. One of the two so admitted this year is a graduate of Tulane University, New Orleans. The increasing range of the territory from which the School draws its students is noticeable.

The change in the character of the university course in advanced design (Architecture 21), authorized by the trustees and faculty last spring, has been put into successful operation. This course has hitherto been identical with the fourth-year courses in design and history, but is now of a strictly graduate character, consisting of four problems in advanced architectural design occupying each two months and accompanied by a certain

amount of original research, the problems being as nearly as possible equal in importance and difficulty to those given out in the first class of the Ecole des Beaux-Arts, but distinctly American in character. It is intended that this course shall afford to graduates and draughtsmen of mature experience, who are unable to devote three to five years of their life to study in the Paris school, as near an equivalent for the foreign discipline as it is possible to furnish in this country. It is not without significance that the President of the American Institute of Architects, Mr. R. S. Peabody, in his address at the recent convention of the Institute in Buffalo, earnestly recommended the establishment of scholarships for precisely such advanced study in the American schools of architecture, the recommendation being made without knowledge of the fact that this School had already taken steps toward meeting this need.

Professor Hamlin is to deliver the Trowbridge course of lectures on art at Yale University in November and December.

Department of Metallurgy.—The efficiency of the department has been increased by the creation of the office of tutor in metallurgy in place of that of assistant in metallurgy, and Mr. A. L. J. Queneau has been appointed to the position.

At the biennial congress of the International Association for Testing Materials and Construction, which was held at Budapest in September, Professor Howe was elected "President d' Honneur" of the congress, as well as chairman of the principal section, that of metals.

The following theses have lately been published by students in the department: "The temperature limits for the separation of graphite from martensite in pure cast iron," by H. P. Tiemann, and "The micro-structure and physical properties of cast-iron as affected by heat treatment, especially in the manufacture of malleable cast-iron," by A. T. Child and W. P. Heineken.

SCHOOL OF POLITICAL SCIENCE

The literary output of the faculty this autumn has been somewhat noteworthy. In addition to contributions to periodicals, it includes the following volumes: Two by Professor Burgess on "The Civil War and the Constitution"; one by Professor Gid-

dings, entitled "Inductive Sociology"; one by Professor Clark on "The Control of Trusts," and one by Professor Sloane on "The French Revolution and Religious Reform."

Professor Clark took part in the proceedings of the International Arbitration Association at Lake Mohonk, in May, and in September delivered an address before the Association of Unitarian Churches.

Professor Robinson delivered an address at Syracuse, November 29th, before the Association of Colleges and Preparatory Schools of the Middle States and Maryland, on "The Elective System and a Liberal Education Historically Considered."

Of the sad and untimely death of Professor Mayo-Smith fitting words are spoken elsewhere. His course on historical and practical political theories is being given by Dr. E. R. L. Gould, formerly of Johns Hopkins and Chicago.

Professor Seligman was chairman of the program committee at the National Tax Conference, held at Buffalo, May 23-5; he read a paper on tax reform in the United States, delivered an address on the taxation of personal property, and drafted the resolutions which were adopted by the conference.

Professor Moore conducted courses on international law in the Naval War College, at Newport, R. I., during the past summer. His lectures are soon to be published by the Navy Department.

A volume called "The History of Political Theories, Ancient and Modern," by Professor Dunning, is announced for early publication by The Macmillan Co.

Department of History.—An event of prime importance in the history of this department is the fitting up of a reading room—323 University Hall—containing a specially chosen collection of working books for students in history. More extended comment on this enterprise may be expected hereafter.

SCHOOL OF PHILOSOPHY

Department of English.—The registrar's report for 1900-01 shows that the total registration for last year in courses in English (exclusive of Teachers College) was 1,131. The number of students taking one or more courses in English was 569. There were 72 graduate students pursuing courses in English, of whom 36 took English as their major subject. The department is now

the largest in the University, with the exception of certain departments in the professional schools. The total registration for this year will show a considerable advance over that for 1900-01.

Professor Matthews was one of the eight American authors who were honored by receiving the degree of Doctor of Letters at the Yale bi-centenary celebration. He is giving this year, for the first time in Columbia College, a course on the development of the English drama. His volume of linguistic papers, "Parts of Speech: Essays on English," was published early in September by Charles Scribner's Sons.

Professor Trent addressed the Monday Night Club of Princeton University, November 8th, on "The Aims and Methods of Literary Study." He is giving three new courses this year—two in the School of Philosophy on English literature between 1660 and 1745, and between 1798 and 1850, and one in Barnard College on Beowulf. He has just published, through the Bradley-Garrettson Co., a volume entitled "Progress of the United States during the Nineteenth Century," being Vol. 5 in Linscott's "Nineteenth Century Series."

Department of Germanic Languages.—The total registration in this department on November 1st was 543—as against 432 at the close of last year. This remarkable increase, the distribution of which will be given later, has imposed unusual burdens on the teaching staff, particularly that part of it which is concerned with undergraduate instruction.

For some time past the department has felt increasingly the need of a special library and reading room—a need which the general library, owing to the location of books in different rooms and the necessary formalities connected with the service of a large library, does not meet in a perfectly convenient way. What is wanted is a small collection of reference-books and such other works as are in constant requisition by the German scholar. The attention of friends of the department has lately been called to this subject by Professor W. H. Carpenter, and the responses are such as to encourage the hope that the want will be supplied at no distant date.

A course of public lectures in the German language will be given as usual during the winter. Several well-known speakers

who have favored us in former years will appear again on this year's program, which is varied and interesting. We count it a particularly good fortune to be able to announce that the course will be opened on January 15 by the Hon. Carl Schurz, who will speak of his early reminiscences of the fatherland.

Professor Thomas is just publishing, with Henry Holt & Co., "The Life and Works of Schiller"—a sightly volume of 480 pages, with a few illustrations in photogravure. The same publishers have also just issued a "German Reader and Theme-book," which is the joint work of Professor Thomas and Mr. Hervey.

Philosophy and Education.—The designation of Professor Butler to serve as acting president of the University and the absence of Professor Hyslop on leave have required a complete reorganization of the courses offered in philosophy and education during the present half-year.

The lecture work in Philosophy 1 and Education 2 is now given by Dr. John Angus MacVannel, instructor in psychology and education, Pratt Institute, Brooklyn. Dr. MacVannel was for a number of years an officer of the University, and has, at the summer sessions of 1900 and 1901, given Philosophy 1 and Education 2 with great acceptance.

Dr. Adam Leroy Jones is acting head of the department of philosophy, with the title of Lecturer in Philosophy, and has personal charge of the courses in ethics, æsthetics and metaphysics, together with the direction of the seminar.

Philosophy 3 (German Philosophy), in which there is an unusually large enrollment this year, is being given by the new assistant in philosophy, Dr. Wilmon Henry Sheldon, formerly teaching fellow of philosophy in Harvard University.

The long years of study which Professor Hyslop has given to the study of abnormal and extraordinary psychical phenomena have borne fruit in the publication, in October, as Part 41, Vol. 16, of the *Proceedings* of the Society for Psychical Research, of his report, entitled "Record of Observations of Certain Trance Phenomena." This elaborate volume of nearly 700 pages covers every possible phase of the phenomena developed in connection with Mrs. Piper, the medium who has been for some time past

under the control of the Society for Psychical Research. Professor Hyslop's volume breaks entirely new ground, and will undoubtedly attract wide attention.

Psychology and Anthropology.—A Psychological Journal Club, with about twenty members, has been organized by junior officers and graduate students of the University. The club meets fortnightly on Wednesday afternoons to hear and discuss reports on the contents of leading journals, and there will be in addition a series of monthly evening meetings of a more informal character. The coöperative preparation of a card catalogue, which shall be a select subject index of psychological literature, is also one of the purposes of the club.

Dr. Alfred L. Kroeber, who received the Ph.D. degree here at the end of last year in anthropology, has been appointed instructor in the University of California, and is engaged in carrying on ethnological researches on the Hoopa Reservation. Mr. William Jones, fellow in anthropology, has been carrying on ethnological and linguistic work among the Sac and Fox Indians in Iowa and Oklahoma Territory. Mr. H. H. St. Clair has been engaged in researches among the Shoshone tribes of Wyoming and Oregon. Both these gentlemen have brought home valuable information on the customs and languages of the Indians among whom they have worked.

Department of Romance Languages.—The public French lectures were resumed on Thursday, November 7th, the lecturer being Professor Jacques Hadamard, of the University of Paris, who chose for his subject the career of the scientific infant prodigy, Evariste Galois, who died at the age of twenty-one, in 1832.

The visit of Professor Hadamard to this country was made on the occasion of the two hundredth anniversary of the founding of Yale University, at the celebration of which he represented the University of Paris and received the degree of LL.D.

Other distinguished Frenchmen are expected to address audiences during the present college year under the auspices of the Romance department, especially Professor Léopold Mabilleau, of the Collège de France, and M. Hugues Le Roux, who is

the Hyde lecturer invited by the Cercle Français of Harvard University.

The result of the last war has been to make Spaniards better acquainted with the United States than was the case even after the Columbian celebrations of 1892-93. If they have learned to understand at their cost what the army and navy of the United States can do, it is just to say that the more liberal of the Spaniards see in this country something more than its fighting strength, and they are anxious to learn more of its internal constitution and administration.

With that object in view, the editor of *El Diluvio*, a liberal daily published in Barcelona, asked from Mr. J. D. Fitzgerald, of this department, who is now in Spain, an article on Columbia University. The article, a sketch of about two pages, was published on the 19th of last September. To facilitate the understanding of what an American university is, a short description of the educational system from the primary school to the college is first given. A brief account of the history of Columbia since its foundation till the present time leads to a review of the different schools composing the University of to-day, together with details of the facilities offered to students by the library, museums, scholarships, etc. A more detailed account of the number of courses under the Faculty of Philosophy follows, as an illustration of the division of the different faculties. The article closes with a list of the courses on Spanish language and literature given in the departments of Romance languages and comparative literature, as being likely to prove of especial interest to Spanish readers. A note of thanks from the editor of *El Diluvio* expresses the wish that this description of Columbia may prove "a brilliant example and a stimulus to raise in our country the level of education, which is the cause of progress in all prosperous countries."

SCHOOL OF PURE SCIENCE

Department of Botany.—The botanical exploration of the West Indies by the combination of the forces of the department and the Botanical Garden has commenced in earnest. Professor Underwood spent the months of June and July in Porto Rico in company with a party of three botanists from Washington, D. C.

The western two-thirds of the island was transversed and over a thousand plants were collected. Besides herbarium material illustrating the distribution of the flora, a considerable number of living plants, especially cacti, were brought back for cultivation in the conservatories, together with a large number of seeds. Dr. N. L. Britton, in company with Mr. J. F. Cowell of the Buffalo botanical garden, spent six weeks in the island of St. Kitts, returning to New York in the early part of October. He also made extensive collections including a very large number of living plants. The exploration of other of the West India islands will be pushed during the coming year.

Dr. C. C. Curtis has secured a large series of illustrations of typical plants for exhibition and instructional purposes, which he is mounting for exhibition in the large laboratory in Schermerhorn hall. He has also secured a considerable series of large photographs, illustrating particularly plant ecology, which will be mounted for the halls.

Three of the botanical staff were in Europe during the summer: Professor Lloyd in Bonn, afterward attending the congress in Geneva, Dr. Richards in Norway, and Miss Dunn in France and the Channel Islands.

Dr. Howe has resigned his position as assistant to accept a position in the Botanical Garden. He made extensive collections particularly of the algæ in Nova Scotia and Newfoundland during the summer. His successor at Columbia is Dr. Alexander P. Anderson, who is a graduate of the University of Minnesota and afterwards received his doctor's degree at Munich. Dr. Anderson has been connected with the University of Minnesota as an instructor but comes to us from South Carolina, where he was in charge of the botanical department in Clemson College. He will carry on researches in plant physiology at the Garden in addition to his duties as assistant at the University.

Two new courses are added to the botanical research series, one bearing on plant pathology by Professor Earle, who resigns the chair of biology and horticulture in the Alabama Polytechnic Institute to accept a position at the Botanical Garden; the second course is given by Dr. Arthur Hollick, whose work in palæobotany is now carried on at the Garden.

The botanical interests of New York were represented at the

Denver meeting of the A. A. A. S., by Professor Underwood and Dr. MacDougal; the latter was at that time on his return from two months' exploration in northern Montana, while the former spent the month of September in the mountains of Colorado, securing considerable material for the flora of Colorado in course of preparation at the Garden.

Department of Geology.—Professor Kemp passed the months of August and September, and a portion of July in field work in that part of the Adirondacks which lies between Lake Champlain and Lake George. The work was done for the U. S. Geological Survey. Professor Kemp was accompanied by Mr. D. W. Johnson, university scholar in geology.

Mr. George I. Finlay, assistant in geology, was a member of the U. S. Geological Survey party under Mr. Bailey Willis, which passed the entire vacation in the mountains along the national boundary between Montana and Idaho and the neighboring parts of British Columbia.

Dr. Julien has completed during the summer several geological papers which he has had in hand for some time past.

Department of Mathematics.—The library of the American Mathematical Society, consisting at present of some five hundred volumes, chiefly of mathematical journals, has been deposited in the Columbia University Library, where it is to be kept as a separate collection. This collection will aim to become as complete as possible in itself, duplicating as far as may be the general university library. The title to the books remains in the Society, which will augment the collection by the deposit of all works or journals which may be received by gift or by exchange for the two journals, the *Transactions* and the *Bulletin*, published by the Society. The University has generously undertaken to bind, catalogue and take care of the books now on hand and all future additions and to make them accessible to the members of the Society. Arrangements will be made by which the books may be sent to members living at a distance who may wish to consult them.

The American Mathematical Society, to which such liberal consideration has been accorded by the University on this and

many other occasions, is, in fact, no stranger to the scientific hospitality of Columbia. The Society was founded here in 1888 as the New York Mathematical Society, Professor Van Amringe being its first president and Professor Fiske its first secretary. The regular meetings were held at Columbia, and this practice was continued when the Society assumed its present national character and name, in 1894. The bi-monthly meetings bring to New York representative mathematicians from all parts of the country, and contribute a fair proportion to the cosmopolitan scientific atmosphere which a great university is proud to foster. The *Bulletin* of the Society has its main office here, Professor Cole being its chief editor, as well as secretary of the Society. The *Transactions*, which is, in part, supported by subventions from a group of ten American universities, including Columbia, is edited by a committee, of which Professor Fiske is a member. Dr. Edward Kasner, of Barnard College, is assistant secretary of the Society.

At a joint meeting of the American Mathematical Society and the American Physical Society, held at Columbia University on Saturday, Oct. 26th, Dr. Jacques Hadamard, professor of mathematics in the Faculté des Sciences, and official delegate from the University of Paris to the Yale bi-centennial celebration, presented a paper entitled "On the Theory of Elastic Plates."

The appointment of Dr. David Eugene Smith to the chair of mathematics in Teachers College strengthens the mathematical work of the University. Professor Smith is an authority on the history of mathematics and on methods of teaching mathematics. An account of Professor Smith's academic services and publications appeared in the *QUARTERLY* for June, 1901, page 300. During the present year Professor Smith offers, besides professional courses for teachers, a two-hour course entitled "The History of Mathematics," open to students who are acquainted with the usual college mathematics.

Dr. George Herbert Ling, recently an instructor in mathematics at Wesleyan University, has been appointed tutor in mathematics at Columbia. Dr. Ling was graduated in 1893 from the University of Toronto with the degree of A.B. He thereupon came to Columbia as a university fellow, obtaining the degree of A.M. in 1894 and the degree of Ph.D. in 1896.

The mathematical department of Barnard College has been increased by the appointment of Dr. William Findlay as tutor. Dr. Findlay received the degree of bachelor of arts in 1896 from McMaster University, Toronto, where he subsequently held for two years a fellowship in mathematics. The degree of doctor of philosophy was conferred upon him by the University of Chicago in 1901, the subject of his doctor's thesis being "The Sylow Subgroups of the Symmetric Group in k Letters."

Among the recipients of the degree of doctor of philosophy at the Columbia University Commencement in June, 1901, was Miss Grace Andrews, assistant in mathematics in Barnard College. The title of Dr. Andrews's dissertation was "The Primitive Double Minimal Surface of the Seventh Class and Its Conjugate." Miss Andrews is the second woman to receive a doctorate in mathematics from Columbia University.

Department of Zoölogy.—The Columbia Biological Series, begun in 1894 with the publication of Professor Osborn's work on the history of the evolution theory, has met with a success which justifies the hope that it has now established itself as a standard and progressive series which may be indefinitely continued. The books of the series deal with current biological problems with sufficient fulness of detail to be of use to special students of zoölogy, yet endeavor to keep sufficiently in touch with broader questions to appeal to more general readers. The sixth volume, on the simplest animals, or protozoa, by Dr. G. N. Calkins, was issued Oct. 1, and has been very favorably received. The seventh volume, now in press, is on "Regeneration and Experimental Embryology," and is the work of Professor T. H. Morgan, of Bryn Mawr College, who is one of the leaders in the field of experimental morphology. It is hoped that an eighth volume will be issued during the coming year, and a ninth volume is in preparation.

The current year has opened with every promise of success in respect both to number of students and quality of work, the increase in number being most marked in the graduate department. The researches in progress cover a more than usually wide range of subjects, including comparative anatomy, palæontology, neurology, embryology, cytology, cell-lineage and experi-

mental morphology. Important changes are contemplated in the advanced courses of instruction, which will much increase the effectiveness of the graduate work. New courses are to be offered in comparative embryology and histology, the advanced course in general zoölogy will be reconstructed so as to correlate it with the new courses, and additional opportunities for laboratory work will be given in several directions. Advanced students will thus be offered a wider range of choice than heretofore, while a better coördination of the courses will also be secured.

Important changes have also been made in connection with the work at Barnard College, where Dr. Crampton has been advanced to the grade of adjunct professor, Mr. W. E. Kellicott has been made assistant, and new facilities have been provided for graduate women students by means of a fund contributed by friends of the College.

During the summer, the biological survey of the south shore of Long Island has made good progress under the direction of Professor Crampton, assisted by Messrs. Scott and Halsey, and a large number of specimens were collected for future study. Valuable embryological material was collected at Beaufort, N. C., by Mr. Torrey, whose studies on cell-lineage are yielding important results. Special work of research and instruction was carried on at the biological laboratories at Woods Hole and Cold Spring Harbor by Messrs. Calkins, Crampton, Strong, McGregor, Kellicott and others. Among these researches the interesting physiological studies of Dr. Calkins on the causes and conditions of degeneration and rejuvenescence in the protozoa deserve special mention as an effective forward step in a difficult and important field of work.

Professor Wilson attended the International Zoölogical Congress at Berlin, before which he read a paper embodying the results of his recent experimental studies on the fertilization of the egg and related topics. He also visited a number of the leading European laboratories and museums.

Professor Osborn, accompanied by Professor Eberhard Fraas, of Stuttgart, made a tour of the Jurassic exposures in the Rocky Mountain region, especially the classic localities in Colorado, Wyoming and South Dakota. Valuable results were secured as to the age of these beds in comparison with the Jurassic of

Europe. The department of vertebrate palæontology in the American Museum has been enriched by an exceptional number of splendid specimens secured through exploration and exchange.

The recent field-work of Professor Dean, and some other matters of general interest, are described in the following letter to the editor of the *QUARTERLY*.

Sir: In accordance with your suggestion I send you the following notes relating to my stay in Japan and the Philippines during my sabbatical year. Perhaps I should first note that the trip was a long awaited one—for there was every reason to believe that it was in Japan and there only that I could secure the material for a special study of certain primitive fishes, which I had vainly tried to collect during visits to the California coast.

Mrs. Dean and myself reached Tokyo the early part of July, 1900, and our Japanese friends, Professors Mitsukuri and Watase, of the Imperial University, Dr. Kishinouye, of the Imperial Fisheries Bureau, and Professor Ichikawa, of the Imperial Museum of Tokyo, gave us a cordial welcome. As a representative of Columbia I was received as a guest of the University of Tokyo, from whose officers, from the president downward, I had many object-lessons in the generous courtesy of the Japanese.

The university speaks a volume for the changes in modern Japan. It is situated in the well-wooded garden formerly of the daimyo of Kaga, where it has grown up on the *Bansho-shirabe-jo*, or the "Place for the study of barbarian writings," of half a century ago. It has now an extensive group of modern, well-equipped, European-style buildings, somewhat German in atmosphere, with excellent laboratories and museums. Its faculty is large, and includes the names of many of the best-known Japanese investigators; there are but few foreign instructors and their number is constantly decreasing. The work of the university, if one can judge from the series of important memoirs which it is issuing, gives proof that research is taking its just place. As far as I was able to observe, the grade of a graduate student in Tokyo is actually higher than in most of our own institutions. The degree which corresponds to the occidental Ph.D. (*Hakushi*) requires a longer course (four years, I un-

derstand, is the minimum term), while the requirements for a degree corresponding to A.B. (Gakushi) are certainly no lower than with us.

In the interest of my zoölogical work I soon found it desirable to make my headquarters at Misaki, a small town at the mouth of the bay of Tokyo, where the Imperial University maintains a seaside laboratory. For in this favorable neighborhood there are several scores of fishermen who are in the habit of supplying the Tokyo fish-market from the deeper waters (300 to 700 fathoms), and there was thus a daily chance for a collector to obtain rare and interesting forms. The laboratory itself is situated on the site of an ancient and haunted castle, whose domain, with picturesque pines, bluffs, harbors and relics, was long reserved for a summer residence of the Prince Imperial, but was finally ceded to the university in furtherance of its scientific work. Thanks to the courtesy of the university, the new laboratory buildings provided us with a delightful work place and home during our prolonged stay.

My first object in visiting Japan was to secure the eggs and embryos of the Port Jackson shark, a form which there is some reason to believe traces a direct descent from known sharks of carboniferous times. Its embryos, therefore, might reasonably be looked upon to furnish evidence as to the relationship of the oldest sharks, and, therefore, as to the oldest back-boned animals. At Misaki I soon found that this form was moderately common, and the native divers and fishermen finally brought me in a valuable series of its eggs. In this region, too, occurs another shark in which I was much interested. This was the frilled shark, which so closely resembles its palæozoic kindred that at the time of its discovery, some years ago, Professor Cope maintained that it actually belonged to one of his fossil genera. I had hardly hopes, however, of obtaining a series of its embryos—although the Japanese investigator, Dr. Nishikawa, had been able to secure several stages some years ago—on account of its great rarity; for one could easily count on his fingers all of even the adult specimens which had hitherto been brought from Japan. I found, however, that the exact fishing ground for this shark is in the neighborhood of Misaki, and that if one could secure many adult specimens there was a fair chance of obtaining em-

bryos, since this shark was known to be viviparous. Moreover, Professor Mitsukuri kindly arranged that should by any chance specimens escape me at Misaki, they should be captured for me a little later in the fish-market of Tokyo. In this way I finally secured a number of the much-prized embryos. For general zoölogical collecting Misaki proved everything that could be wished. Interesting types of deep-water fishes were brought in frequently. Stalked crinoids and beautiful glass-sponges were by no means uncommon, and such a zoölogical treasure as *Lingula* could be got almost at the steps of the laboratory. As a collecting ground for fishes, moreover, I was assured by President Jordan, of Leland Stanford, who visited us and secured about three hundred species in three days, that he knows of no richer locality.

During the fall of 1900 we made a short excursion to the island of Yezo, to obtain a glimpse at the aborigines of Japan. There are still about 12,000 of these, the Ainos, scattered about the island, but they are rapidly losing both their individuality and their ancient customs. In many towns the young Ainos are not to be distinguished from the Japanese. This trip proved such an interesting one that I was led to continue it, for the purpose of securing a collection of Aino antiquities, which was later sent to the American Museum of Natural History. My collecting gave incidentally an opportunity of meeting the older Ainos and of getting at first hand an idea of their curious cult, shown for example, in their fishing, tattooing, household and religious rites. Bear worship is still commonly practiced in the more primitive towns.

During the winter another and longer excursion was made. I wished, first, to visit the island of Shikoku, where near the city of Kochi, are still, although rarely, to be found examples of the breed of long-tailed fowls—famous as one of the best examples of artificial selection—whose single feathers sometimes attain the extraordinary length of fifteen feet. Similar, and in a way as successful, results of artificial selection I had next an opportunity of examining near the ancient city of Nara, where the culture of gold fish has been carried on since early times; in fact, several private establishments which I inspected in this region dated back over two centuries. I now visited the centers of artificial

oyster culture in the neighborhood of Hiroshima, where the Japanese have evolved a system for the production of marketable oysters which compares very favorably with that of the coast of France.

A short stay was then made in the Chinese coast cities, and a stop of a few days in Canton; then a trip to Manila. Here in conversation with Prof. Dean C. Worcester, United States Commissioner to the Philippines, I learned, to my surprise, that living specimens of the pearly nautilus could be obtained in the channel off the island of Negros. Now, as few naturalists have ever seen well-preserved, to say nothing of living, specimens of the nautilus, a form of considerable interest in the zoölogical scale, here was evidently an opportunity which should not be lost. So we journeyed to Negros, and remained for upward of a month in the town of Bais, under most tropical conditions, in a land of cocoanut trees, bread-fruit, tailor-birds, pythons, rhinoceros hornbills and scorpions, and with an excellent opportunity of observing the somewhat untrustworthy natives of our new territory.

My first discovery in Negros was an uncomfortable one: the northern monsoons were in full force in the channel where my work was carried on, and the small *prahus* of the native fishermen had a way of swamping. It was only by a happy chance that I was at last able to secure half a dozen specimens of living nautilus—enough, however, to give me the desired opportunity of observing some of their habits. Incidentally, moreover, much interesting zoölogical material was here obtained, such as the rare black coral, brachiopods and millepores, and other typical South Sea forms which hitherto had not been represented in our teaching collection.

Very truly yours,

BASHFORD DEAN

SCHOOL OF MEDICINE

Department of Physiological Chemistry.—William D. Cutter, A.B., recently resigned the position of assistant in this department, and his place is taken by Philip B. Hawk, M.S.

Alfred N. Richards, assistant in the department since its organization, received the degree of Ph.D. from Columbia last

June. The subject of his thesis was: "The Chemical Study of Yellow Elastic Connective Tissue."

In the preface of his "Text-book of Plant Physiology," Dr. D. T. MacDougal mentions the assistance which he received from Mr. J. E. Kirkwood, formerly a student in this department, and Dr. Gies, in the preparation of the chapter on "Composition of the Body," pp. 147-174. Professor Bessey gave this chapter very complimentary reference in his review of Dr. MacDougal's book in a recent issue of *Science*.

Dr. Gies spent part of the summer in research at the Marine Biological Laboratory, Wood's Hole, Mass., occupying the investigator's room of the department of physiology of this University. A paper giving some of the results of his work was published recently in the *American Journal of Physiology*, entitled "Do Spermatozoa contain enzyme having the power of causing development of mature ova?"

Department of Physiology.—During the last summer Mr. R. A. Budington was a member of the staff of instructors in zoölogy at the Marine Biological Laboratory, Wood's Hole, Mass.

In September last Professor Lee was in attendance at the Fifth International Congress of Physiologists in Turin. He presented three papers, one on "The Causes of Muscle Fatigue," one with Mr. C. C. Harrold on "Rigor Mortis," and one with Dr. W. Salant on "The Action of Alcohol on Muscle." All these represented researches carried on during the past year in this department.

BARNARD COLLEGE

The offer of Mr. John D. Rockefeller to give \$200,000 to the endowment fund of Barnard College provided another \$200,000 be raised before Jan. 1, 1902, has led to an appeal to the people of New York to subscribe the money necessary to make Mr. Rockefeller's conditional gift available. This appeal is signed by the treasurer and finance committee of the trustees. After a few words upon the honorable status already achieved by the College the appeal goes on to say:

Barnard has shown that it is possible for a college to spring at once full-grown into the first rank, without passing through a preliminary stage of second-rate privileges and a gradually rising standard. Through its connection with Columbia, Barnard has been able, from the beginning, to

offer instruction of the highest grade and a degree equal to those of our oldest universities. Barnard has had, therefore, no unproductive period.

Beyond everything, Barnard has shown that it is needed. Before 1889, not an institution offering women a college education existed in the vicinity of New York. Many declared that New York parents either did not care for the higher education of their daughters, or preferred to send them away from home. The steadily increasing number of Barnard students has controverted this reasoning better than any argument could have done. Girls come to Barnard partly because of its superior opportunities in certain lines, but principally because parents are beginning to realize that college life and home life need not be mutually exclusive.

Greater New York and the suburban towns within a radius of twenty-five miles have a population of more than four and one-half millions. Within a similar radius, Boston, with its comparatively small population, has four colleges open to women; Philadelphia, three; Baltimore, two; Washington, two; and Chicago, three. Already, as might have been expected, Barnard is overtaxing the accommodations which four years ago seemed ample. The young women of New York have proved that they need this college. The question now is whether Barnard will be able to supply the needs of their ever-increasing number.

Owing to the constantly growing demand for more and larger class rooms, Fiske Hall dormitory must soon revert to its originally intended use as a science building. The college dormitory is one of the most powerful means for developing the finer womanliness, which is the ultimate aim of woman's education, and it would indeed be a step backward if Barnard were to be left without a dormitory. A student's building, also, is absolutely necessary for social and study purposes. Where over four hundred girls spend the entire day away from home, large provision must be made for their care—or health, manners and scholarly habits will suffer. Moreover, the absence of facilities for country sports makes imperative the provision of a well-equipped gymnasium. Before these buildings become possible, more land must be secured in a district of steadily increasing land values. An observatory has already been promised, but the lack of a site prevents the gift from becoming immediately available.

The pressing need of the College, however, is adequate endowment. The real strength of a college is in the spirit of the men and women who guide its thought and life, and, therefore, an endowment sufficient to command the services of the best educators is the surest guarantee of future usefulness that a college man can have. This endowment has been made a possibility through Mr. Rockefeller's liberal offer; and by timely coöperation Barnard College can thus be placed on a permanently firm financial basis.

It is to be hoped that so good a cause will find the favor requisite to success. The Barnard of the future—the college for women that we can all begin to see in our mind's eye—needs,

to be sure, a much greater endowment than the sum here under consideration. But \$400,000 will help.

TEACHERS COLLEGE

Teachers College has entered upon the new year under auspicious circumstances. The registration is greater than that of last year, the Horace Mann School is occupying its commodious new home, the repairs of the college building—involving an expenditure of \$100,000 and incident to the removal of the School, the rearrangement of offices and the demands of certain departments for larger quarters, due to recent rapid growth—are completed, and the dormitory indirectly connected with the College is ready for occupancy.

The registrar's records for the week ending November 1st show an increase of 164 in the number of students over the same period of 1900-01. There is also a noticeable gain in the number of students enrolled in graduate courses. It is interesting to note that the increase in registration is almost exclusively of students from states other than New York. The enrollment from California alone is ten students, one of whom is head professor of education in Stanford University, another is an instructor in the same institution, and two more are professors of pedagogy in the California State Normal School. Maine sends six students, and the Southern States have a large representation.

The dean's report for the past year is especially interesting. It shows that the total enrollment in the College was 593 students, an increase of 33 per cent. over the previous year, and that of this number 180 are college graduates and 148 normal-school graduates—an increase of 80 per cent. and 56 per cent. respectively. The number of institutions represented was 82 colleges and universities and 51 normal and training schools, as against 66 colleges and 41 normal schools the previous year, and 58 colleges and 21 normal schools in 1898-99. It is especially significant that an increasing number of college graduates have registered in undergraduate courses. The 87 candidates for the higher diploma and the 70 candidates for the secondary diploma are all college graduates or persons of equivalent academic training. Besides these, 6 candidates for the elementary diploma, 1 candidate for the kindergarten diploma, 3 candi-

dates for the domestic science diploma, 2 candidates for the fine arts diploma, and 1 candidate for the manual training diploma held degrees from other institutions. Moreover, 67 students have been admitted to advanced standing in our undergraduate courses on evidence of a partial course in some recognized college.

The influence of the College has been best shown in the number and character of the positions accepted by its students. During the past year the number of positions to which students have been appointed or to which they have returned after leave of absence is 127, distributed as follows: colleges and universities, 11; normal schools, 9; superintendent of public schools, 1; supervisors and special teachers, 19; secondary schools, 42; elementary schools, 27; kindergartens, 7; other positions 11. The Teachers College Committee has received direct applications for 320 teachers, not counting many inquiries received by members of the faculty and teaching staff.

The total expenditures for the year just past were \$223,723.85, of which all but about \$9,000 went for current expenses. The income of the College from earnings was \$140,684.98; from trust funds \$8,433.51, and from other receipts \$297.31. The deficit of over \$65,000 was counterbalanced by donations of over \$84,000; out of this surplus of \$19,000, nearly half was used to pay a city assessment for opening One Hundred and Twentieth Street, west of Broadway, and the balance nearly wiped out the loan of \$14,000 from the fiscal year 1900. Classes five times the size of those in 1897 are being conducted at an increased outlay of but 47 per cent. The earning capacity of the College has kept practically even with the increase in expenditures.

The first step toward the establishment of a department of physical education that shall take rank with the other educational departments of the College is seen in the appointment of Thomas Denison Wood, M.D., as professor of physical education.

Professor Wood is a graduate of Oberlin College and of the College of Physicians and Surgeons. He had charge of the men's gymnasium at Oberlin for two years, and during the last ten years he has been professor of hygiene and organic training in Stanford University, California. Since May, 1900, Dr. Wood has been on leave of absence for the purpose of study and

travel in Europe. He comes to the College with an established reputation as a scholar and physician, whose chief interest is in physical education.

Referring to the department of physical education in his report Dean Russell says, after some remarks on the importance of the subject:

Teachers College has not waited upon the demand for specialists in other lines before making provision for their training. Our policy has been rather to do the thing that obviously should be done, and our experience has been that the demand comes when the supply is ready. No one can deny the imperative need of specialists in physical education, and no institution in America is better fitted to undertake the training of such specialists. With the support of our School of Medicine and of the University departments of biology, psychology, and anthropology, and with the facilities for practical demonstration afforded in our schools of observation and practice, Teachers College can confidently undertake the task. There is but one hindrance—a suitable gymnasium and work-rooms for the department. Until this need is supplied, we can neither train specialists nor properly attend to the physical education of the pupils and students now under our care. No benefaction that we could receive would be more praiseworthy at present or more serviceable for the future.

Two publications by members of the faculty have recently come from press. Professor Monroe's "Source Book in the History of Education for the Greek and Roman Period" aims to put in the hands of students in a convenient form the sources in the history of education for the classical period. These sources are so scattered, and consequently, in many cases, impracticable for class use, that this volume should meet a long-felt want. This volume is the first of a series by Professor Monroe which will cover the entire field of educational history. Professor Smith, in conjunction with Professor Beman, of Michigan University, has published a revised American edition of Sundara Row's "Geometrical Exercises in Paper Folding." This is the work so highly recommended by Klein, of Göttingen. The edition is illustrated by half-tones representing the paper folding.

The new dormitory, erected by the Morningside Realty Company, stands on the west side of Amsterdam Ave., running from 120th to 121st Sts. It is a handsome fire-proof structure, ten stories in height, the two lower stories being of stone, above which red brick with terra cotta trimmings is employed. It

consists of four sections, with connecting pavilions running along the central line of the building. The two end sections are given up to apartments, there being two of these on each floor. The two central sections, with the connecting pavilions, form the dormitory portion of the building, which is so arranged as to be completely shut off from the end sections, having its own entrances and elevator service.

The main entrance on Amsterdam Avenue leads into a spacious rotunda, with marble floor and wainscoting. Light is admitted through two large domes of stained glass in soft colors. From either side of the rotunda passageways lead to the elevators, and also to the marble stairways which communicate with the upper floors. From the rotunda there is also communication with the offices of the building, and with the library and common rooms, which are lofty and attractive. There are also two small parlors on this floor for the general use of the occupants of the dormitory portion of the building.

The rooms in this portion are all designed to be occupied by one person, but are so arranged that they may be rented, if desired, in suites of two or three, and there are also a limited number of suites consisting of two rooms with private bath. The three-room suites consist of a study, out of which open two bed-rooms.

The rooms are simply, but adequately furnished, and the rental price includes heat, light and care. The electric fixtures were specially designed for student use, and deserve mention as one of the features of the building. Each floor has two parlors for the general use of those on that floor, and is also equipped with ample toilet facilities, including shower and needle baths. On the ninth floor are located the dining rooms and restaurants. These are exceedingly attractive rooms, commanding wide outlooks over the city and the Hudson and East Rivers. The restaurants are so arranged as to communicate directly with the apartment ends of the building, the tenants of which may thus have ready access to them if meals are desired. Table board will be provided in the main dining rooms at very moderate rates for the women living in the dormitory.

The building will undoubtedly prove a great boon to the women students of Teachers College, for whose benefit it was primarily designed and erected.

STUDENT LIFE

Columbia.—The two larger societies in the College, after some difficulty in getting housed, have gotten well under way. **King's Crown** started with an enthusiastic meeting to welcome Professor Jackson back from India. The Crown this year will lay more stress on the social side, as it originally intended to do. It will try to get the men together as much as possible and to do all it can to promote a live college spirit by singing and cheering. The singing is, however, hard to get under way, owing to the fact that there is really no good Columbia song-book of convenient size. The Crown also hopes to get several prominent men to speak before it during the winter.

The **Deutscher Verein** has reached the limit of its membership, and has a long line of applicants upon the waiting-list. The Verein hopes to repeat the success of last year and the meetings thus far have justified that hope. The library bought from the Conried fund is upon the shelves. It consists of books in and upon German literature and of many standard reference books connected with the advanced courses in the German department. The Verein may give a German play this year in the Irving Place Theater. Besides this, there are no definite plans except to continue to bring the officers and students together as before and to promote college spirit and *Gemütlichkeit*. The *Société Française* has also begun work. The membership has been limited and the qualifications for admission have been made more rigorous.

The **Chess Club**, though weakened by the loss of Falk, hopes, with the aid of some of the very good new men who have come out, to keep the cup and the championship. Hard preliminary practice games have been played with the strong teams of the Bishop's, Newark and Brooklyn Chess Clubs. The team also defeated Princeton in a closely-fought match, the score being $5\frac{1}{2}$ to $4\frac{1}{2}$. This is the third successive defeat for Princeton, which has scored 11 points to Columbia's 19.

Fifty-six men have come out for the **Pennsylvania Debate**, among whom are several of last year's team and alternates. The method of choosing the team this year varies from that of previous years. Formerly the team was chosen from a number

of men who made six-minute speeches. Now a captain is appointed and all the men are set to work looking up the subject. The candidates are divided into teams and the less fit men are gradually excluded. When all but six men have been dropped a public debate is held between them, and three and an alternate are chosen. This year's subject is: "Resolved, That an amendment to the Constitution of the U. S., providing for a change in the method of treaty-making, is undesirable." Pennsylvania, which has the negative, won last year, but Columbia, under the captainship of C. A. Baker, '99 C., '02 L., hopes to turn the tables. The debate will be held on December 13 at Lenox Lyceum.

The **Varsity Show** this year will be a revival of "Vanity Fair," by Powers, '99, and MacGregor, '96. This show was given in '98, and is one of the best ever turned out by Columbia actors. The show will probably be given early in February. The reason for a revival is that none of the shows submitted in competition seemed suitable. Of the two of which there was any question, that of Parsons and Westervelt was hardly a comic opera, but rather a farce comedy, while that of Hunting and Langs was not felt to be dramatic enough, in spite of its cleverness and good music.

The **Papers** at Columbia are doing very well. *Spectator* is much improved in tone and letter press. The latter improvement is especially grateful. *Spectator* is fast becoming the organ of the students as such, and if it continues its present tone it will do much for the good of the college. The *Literary Monthly* will continue along the same conservative lines as before, though all of its departments will be brightened as much as possible. *Morningside*, encouraged by the support it has received, will also endeavor to raise its tone. The *Jester* is still a little flabby, but under the present management there is no reason why it should not become a first-class college comic paper.

The **1903 Columbian** which is promised for December 10th, is to be a far more imposing book than ever before. It will contain the usual material plus those new features which the times demand. In externals there will be one radical change—that of a flexible leather cover instead of the usual linen. Its dedication is as yet a secret.

The classes are all active. The seniors will have a series of dinners and will try to develop the best possible senior singing. The junior ball will be given during the Christmas holidays. The soph. show this year is "Arabian Nights," a professional show. The freshmen have shown much energy and have organized a debating society and a foot-ball team. Altogether the outlook for a good college year is very bright. G. H. D.

Barnard.—It is hoped that the **social part** of Barnard life will not be as conspicuous this year as it was last. It is not intended, however, to limit the number of entertainments given, but simply to scatter them more judiciously over the college year. For this purpose a committee, known as the Play Supervision Committee, has been appointed to investigate the plays given, the standing of the members of the casts, and the dates of the performances. The arrangements for the undergraduate teas have also undergone some changes intended to do away with the crowding and general confusion so seriously complained of last year. There are to be only three teas instead of four, in order that service and refreshments may be improved upon; and to avoid the crowding, the first floors of the three halls are to be thrown open in addition to the class studies, where members of each class may meet their friends.—The class of 1905 has already been entertained by each of the other classes, but there has, as yet, been no responding hospitality on the part of the freshmen. 1902 gave a german, 1903 a play, and 1904, though she cannot describe the entertainment already given, hopes soon to redeem herself by some lavish performance.—The Students' Aid Committee has given a journalistic tea to the undergraduates, at which several women journalists spoke on journalism as a profession for women.—The "short and early" dancing class is to have three instead of four meetings this year in Brinckerhoff Theater, which is also to be open the third Thursday evening of each month for dancing and an occasional musical, when the members of Fiske Hall are to be at home informally to their friends.

Through the Y. W. C. A., a continually increasing **religious influence** is felt throughout the college. In addition to the Tuesday and Friday chapel services and the mission study class of last year, a vesper service is held Sunday afternoons and four

Bible classes have been formed, one for each college year. The philanthropic work of the Association has, so far, been confined to reading at St. Luke's and the preparation of the Thanksgiving barrel and the Christmas box for the Y. W. C. A. settlement.—The C. S. M. A. is taking up this year the study of missions in our new territories, a problem which has now come into the domestic field. Several excursions to the Rivington Street settlement have been made recently by certain of the students, and it seems as if a livelier interest is going to be taken in the settlement work than has been heretofore felt.

One of the most important innovations that have been made this fall has been the incorporation of the Basket Ball and Tennis Clubs in the **Athletic Association**. Through this arrangement the whole spirit of the college towards athletics has been changed. The tennis tournament is a great success and the basket ball practice is conscientious and enthusiastic. There are to be match games between (1) the classes, for class championship; (2) the first team and outside college teams; and (3) the freshman team and school teams.—The Société Française is seriously contemplating the old scheme of evening meetings in preference to the bimonthly afternoon meetings of last year, which were so poorly attended.—The Deutscher Kreis still finds coffee a great lubricator of the German tongue and therefore expects to continue its Kaffee Klatsche.—The reading of Lucian, which the Greek club expects to do at its bimonthly meetings this winter, will undoubtedly secure full and hearty attendance.—In selecting simpler music the chorus has probably done the most sensible thing possible, since one hour a week does not give opportunity to do more difficult work in a very satisfactory way.

The editors of the two Barnard **publications** find this, as every other, the busiest time of the year: the editors of the *Mortar-board* in trying, according to precedent, to bring out the annual earlier than it has ever appeared before; and the editors of the *Bulletin* in showing that their paper really can be better than it was.

E. A.

ATHLETICS

In athletics, the main interest has centered on the **Foot Ball Team**, which started out with very bad prospects, but which has pulled up wonderfully, as the following record will show:

Rutgers	0	Columbia	27
Williams	0	"	5
Harvard	18	"	0
Hamilton	0	"	18
Yale	10	"	5
Haverford	6	"	29
U. of Pennsylvania	0	"	10
Georgetown	0	"	18
Syracuse	11	"	5
Cornell	24	"	0
Annapolis	5	"	6

The Golf Team has also been very active although not very successful. The scores have been as follows:

Nassau	16	Columbia	10
Westchester	5	"	13
Oakland	14	"	10
St. Andrews	14	"	13
A pawamis	8	"	14

Play for the championship of the University is in progress at the present writing, and from all indications W. L. Glenny, 1902, College, runner up in the N. J. State Championship, will win out.

In Tennis there was no single tournament held this fall, but challenge matches to determine the Princeton team were held instead. Columbia was represented by L. E. Mahan, A. E. Thurber, J. F. C. Ropes, H. C. Miller, H. B. Hatch, and H. L. Parr. This team was defeated, having lost all matches save the first, in which Mahan beat Alexander, the intercollegiate champion. The double tournament was won by Mahan and Thurber, runners up Hatch and McLaughlin. The single championship will be decided in the spring. Until then Mahan holds the championship.

The Track Team had some difficulty in getting started, owing to the sudden illness of M. H. Dodge, the manager. At present, however, everything is running smoothly and the men are practicing hard for the cross country and the indoor games to be held early in December.

The Fall Regatta was somewhat of a fiasco, only one race having been held. This was between the Freshmen, College and Science, and was won by the latter. The Fencers have elected officers and are trying to get up a Fencers' League to promote that sport here and elsewhere. The basket ball and lacrosse teams have also made beginnings and are working steadily. Most other sports are dormant until spring, but even as it is the athletic situation is promising. About 200 cards have been issued by the Director of the Gymnasium to men who wish to try for the various teams, and it is expected that this number will be doubled when the applications for permits for the spring teams come in.

G. H. D.

THE ALUMNI

The annual meeting of the home Association of the Alumni of Columbia College was held on Monday evening, October 7, 1901, at Sherry's, with President Edward Mitchell in the chair. The usual annual election of officers was held, and the reports of the standing committee and treasurer were presented. The following officers and members of the standing committee were elected: President, Edward Mitchell, '64; vice-president, Julien T. Davis, '66; treasurer, Theodore F. Lozier, '76; secretary, Frederick P. Keppel, '98. Members of the standing committee: Stuyvesant F. Morris, '63, Willard V. King, '89, Albert W. Putman, '97, Arthur A. Fowler, '99.

In accordance with the usual custom, the report of the standing committee will be sent to every alumnus, and to any friends of Columbia who may be interested, upon application to the secretary of the Association. Address: Columbia University.

An association of the alumni in California has recently been organized under very favorable auspices. Colonel William Renwick Smedburg, College '57, was elected president; Dr. Benjamin R. Swan, P. and S. '68, vice-president; Dr. John C. Spencer, College '82, secretary, and John E. De Ruyter, College '83, treasurer. The address of the secretary is 590 Sutter Street, San Francisco. A constitution was adopted and the membership of the Association was extended to include graduates living in Nevada, Oregon, Washington, Idaho and Arizona. There are 136 Columbia graduates living in California, and seventy-four in the other states and territories mentioned.

We give below an extract from a paper read at the Denver meeting of the American Association for the Advancement of Science, August, 1901, by Dr. Marcus Benjamin, of the class of '78, School of Mines:—

"In the year before Colorado became a state I entered the School of Mines of Columbia College, as the course in applied science in that University was then called, and even at that time—a full quarter of a century ago—Colorado was the land of promise toward which our undergraduates turned their hopes for fame and wealth. Already one of our alumni had settled in your territory, and I find the name of Theodore F. Van Wagenen, of the class of 1870, described as editor of the *Mining Review* in Georgetown. Later he became a staff correspondent of the *Engineering and Mining Journal* of New York City, and his name appears as one of your local committee appointed for the reception of our Association. Let me call your attention to the fact that he is the author of a "Manual of Hydraulic Mining for the use of the Practical Miner," that was published in 1880, a modest volume, it is true, but one which must be among the earliest of the scientific works to be published by a resident of Denver. In a summary such as this the utmost liberality may be expected, and I am glad to find the name of S. G. Sackett among the mem-

bers of your local committee; for I fancy that he is none other than the Sherman G. Sackett, of the class of 1873, who was allured to your Eldorado before graduating. He served you and his country for a time at the Branch Mint in Denver.

Of my own contemporaries the most distinguished in your midst is Malvern W. Iles, of the class of 1875, who entered the service of J. B. Grant in 1879, in Leadville, and subsequently was chemist of the Grant Smelting Co., metallurgist of the Omaha and Grant Smelting Co., and superintendent of the Globe Smelting Co. He has become an accepted authority on the smelting of lead and silver, and his researches on slags and furnace products are classics in the literature of Colorado metallurgy. No historian of the development of the mineral wealth of your great state can afford to ignore the splendid work of this scientist. Magnus C. Ihlseng of the same class was for many years the occupant of the chair of mining engineering in your School of Mines, and George C. Tilden, of the class of 1876, filled the chair of chemistry for some time in the same institution. In this connection I am reminded that Albert C. Hale, sometime of the class of 1879, who is here to-day in his capacity as secretary of the American Chemical Society, was during 1880-3 president of your School of Mines, to which institution he was called after study at the University of Heidelberg, Germany.

My own class has, I believe, contributed not a little to the scientific development of Colorado. It was Robert E. Booraem, of the class of 1878, who, almost immediately on graduating, located in Leadville, where he served as superintendent and then manager of the Evening Star, Morning Star, and other mining properties there, also later at Independence, in charge of the Farwell Gold Mines. It was Walter B. Devereux who at first was active in Aspen, but later turned his attention to the development of your attractive resort at Glenwood Springs. It was Benjamin B. Lawrence who settled in Summit County, where he became superintendent of the Montezuma mine and subsequently manager of the Dives Pelican mines in Georgetown. He now enjoys a consultancy practice which I understand is extremely lucrative. It was Cortlandt E. Palmer who for a time was connected with the famous Mollie Gibson mine in Aspen, and important papers from his pen have appeared in the scientific journals. One more of my classmates has made Colorado his permanent home; I refer to William Strieby, who for nearly a quarter of a century has been professor of metallurgy and assaying at Colorado College.

There are others whose stay in your midst has been less permanent, but their records are so scattered that it is impossible even to mention their names; also there have been many who pursued partial courses of study at the Columbia School of Mines, and among those the name of Herman C. Joy occurs to me. He was for a time a resident of Denver and I believe was professionally engaged later both in Pueblo and in Cripple Creek.

Two of the men who graduated three years after my class have become citizens of Denver. Howard V. Furman, of the class of 1881, has not only

been Chief Assayer of the U. S. Branch Mint, but was also for some years professor of mining and metallurgy in your School of Mines. His textbook on assaying has received the approval of his scientific associates, as is shown by the fact that it has passed through several editions. Thomas B. Stearns was a member of the same class as Professor Furman, and the fact that he is a member of the executive committee of your local committee is evidence of the success of his professional career.

Of the class of 1884 I find that Charles W. Miller settled in Aspen, in 1885, as an assayer and chemist, becoming later U. S. Deputy Mineral Surveyor, and still more recently assistant manager of the Silver Lake Mines in Silverton.

Four members of the class of 1885 have settled in Colorado. Ernest J. H. Amy was for nearly fifteen years connected with the San Juan Smelting and Mining Company in Durango, from which corporation, however, he retired in 1899 to engage in private practice. Charles F. Lacombe, after several years' service in examining gold and silver mines in Colorado, Utah, Montana, Arizona and Mexico, settled in Denver, in 1890, becoming president and manager of the Mountain Electric Co. Edward N. Van Cortlandt, I find, was active as a consulting engineer with Denver as his home, during the early part of the last decade, and his address is still there. Ernest A. Wiltsee, also of the same class, has chosen your city as his home and after filling various professional appointments in different parts of the world he is now actively connected with the Wiltsee-Seeley Investment Co. of Denver.

In recent years fewer of our alumni have settled in Colorado and I am willing to assume as explanatory of that fact that the graduates of your own School of Mines, with its able faculty and thorough equipments, are supplying the demand. Nevertheless I find that Frank C. Hamilton, of the class of 1894, was assayer with the Colorado Smelting Co. in Pueblo, and later filled a similar appointment with the Brodie Gold Reduction Co. of Cripple Creek. The last name on the list that I have is that of Alfred C. Beatty, of the class of 1898, who is described to me as following his profession as a mining engineer, making Denver his home.

I have said last, but there is one more, one who having received his professional education abroad, has contributed so much of value to the advancement of metallurgical science that Columbia could not afford to allow him to remain outside the fold of her chosen ones and therefore honored herself by conferring the honorary doctorate of philosophy upon him. Dr. Richard Pearce is so well known to you, that no words of mine are needed to describe his ability or his works. I am proud to include his name among my fellow alumni."

The Centennial Class, known as the men of "seventy-six," held its annual reunion at the Hotel Savoy on June 10, 1901, in honor of the twenty-fifth anniversary since graduation. This class, unlike many classes, as it grows older increases the number of those present at its reunions. The larg-

est number which has attended any previous reunion was seventeen, but at this last reunion, the number present reached twenty-seven. The following members of the class were present: Messrs. Arrowsmith, Bang, Drisler, Dugro, Ely, Embury, Holden, Ivey, Jones, Lozier, Morrow, Page, Raegener, Rankin, Reed, Renwick, E. Seligman, G. W. Seligman, I. N. Seligman, Smith, Sprague, Thayer, Throop, Townsend, Verplanck, Williams and Wyatt. Out of a class graduating thirty-seven men, twenty-four of the number put in an appearance, together with three others who had been at some time members of the class. Of the thirty-seven members who graduated, three have died, and three were either abroad or too far away to come. Letters were received from Messrs. Von Sachs and Johnson and were loudly applauded when read. The table was beautifully decorated with flowers, while in the midst of a bed of roses in a beautiful centerpiece, the class motto appeared. Of all the reunions held, this was by far the most delightful. The class spirit was never more sincerely felt and expressed. Judge Dugro acted as host of the occasion, and praises of his hospitality were given without stint. All the reverends of the class were present—Arrowsmith from Lenox, Mass., Williams from New York City, and Morrow from Norwich, Conn.

The following members of the class are practising the profession of law: Bates, Calman, Embury, Hyde, Jones, Kent, Livingston, Lozier, Page, Raegener, Reed, Renwick, Smith, E. Seligman, G. W. Seligman, Townsend, Verplanck and Wyatt. Judge Dugro has commenced another term, and will continue to dispense justice at the old stand from the New York Supreme Court bench. Townsend, as Assistant District Attorney, will contribute his efforts toward meting out justice. Drisler is connected with the Drisler School. Bang and Rankin are practising their professions as physicians. Ivey and Sprague are following mercantile pursuits. It is reported that Pratt has become Surrogate of Lincoln County, Idaho. To those interested in the career of Fred Oakes, a cue may be obtained of his proficiency in his favorite art by a visit to the New York Athletic Club. I. N. Seligman is a banker, Johnson is traveling abroad, Von Sachs resides in Vienna, and his correspondence frequently appears in the New York Press. Holden is a civil engineer. Ely and Thayer are professors of the class. Ely is Director of Economics and Political Science at the University of Wisconsin, Madison, Wis., and Thayer is professor of English Literature at Lehigh University, Bethlehem, Pa. Throop combines furnishing talent for entertainments with life insurance. Goodwin deals in patent fire extinguishers.

Brief addresses were made by most of those present, but those who attended for the first time were particularly requested to respond. In the absence of the class poet the poem read on classday at the time the class graduated was partially read over again by Eugene Seligman, especially that part which described the characteristics of the various members of the class as they appeared to the poet at that time.

The members of the class who have joined the silent majority are Gris-

wold, Mayer and Schenck, who graduated, and of the others who were connected with the class, Merritt, Van Wyck and Sands.

Since 1899 the class has held annual reunions, and they will hereafter be continued. The members of the committee appointed to arrange for reunions congratulate themselves upon obtaining the promise of twenty-seven men to be present, and further upon the fact that every man kept his promise.

T. F. L.

The Reunions Committee of the Class of '92, Arts and Mines, has issued a comprehensive report of the various meetings of the classes during the academic year just closed, including also a forecast of the plans of the reunions to be held during the academic year 1901-1902. The spirit manifested by the members of this class is worthy of emulation. It is very apparent that the Reunions Committee is enabled, through systematic endeavor, to push forward its work of binding together the members of the classes of '92. It is, furthermore, apparent that the classes do not trust to fleeting emotions occasioned on the spur of the moment, which so easily evaporate.

During the year three formal reunions were held, the chief of which occurred on Commencement day, June 12, 1901. On this latter occasion thirty-one members of the class responded to the roll-call, while twenty-four communications were read from absent members.

The committee has planned for four reunions during the current year. The first of this series has already taken place, the occasion being the Pennsylvania vs. Columbia football game at Columbia Field, November 2, 1901. The second reunion takes place on November 26, in connection with the 1892 cup contest, at which a cup will be presented for the highest record in punt-kicking by a member of the Columbia University football team of 1901. On March 4, 1902, there will be a mid-winter reunion, in the form of a smoker, at the Columbia University Club. The commencement reunion will take place on June 11, 1902. South Hall will, as usual, be the headquarters of the class during the day. During the alumni luncheon there will be an informal reunion at the '92 table. A decennary banquet and a baseball game between the married men and the bachelors have also been arranged. A special effort will be made to make this decennial reunion not only a great celebration for the class, but a notable and epoch-making occasion in the annals of the College. The classes of the ten years following '92 will be invited to hold their reunions at the same time in the halls of the Alumni Memorial building, and join in the celebration of the completion of the first decade of the class of '92. All class men resident in or near New York are asked to allow no engagements to interfere with their presence on this occasion. It is the wish of the committee to have an attendance of the whole class, and every member is heartily invited to attend.

The following is a report of the activities of the Class of '99 College during the past year. The season was auspiciously opened on the even-

ing of October 6, when a large number of '99 men attended the initial meeting of the Alumni Association. Again on the night of December 13, at the reception tendered the football team, '99 had twenty-two members present. The football reunion of the class took place at the Yale-Columbia football game on October 27. An informal dinner at Browne's Chop House followed. There was a '99 company in the sound money parade of last year. The second annual dinner of '99, held at Shanley's restaurant on December 28, 1900, was, from the standpoint of attendance and enjoyment, most successful in every respect. The "Beer" reunion at George Ehret's brewery on the afternoon of April 13, 1901, followed by the dedication of the '99 yew tree stone late in the afternoon of April 18, were equally successful. And the year was closed by one of the best of the '99 reunions on Commencement afternoon and evening, June 12. At the alumni luncheon on that occasion twenty-eight members of '99 were present, '99 having next to 1901—the graduating class—the largest number of representatives from any single class. After the dedication of the Memorial Hall the class adjourned to College Hall, where the '99 punch was served to one and all. Singing, cheering, and good-fellowship was the order of the day. The '99 phonograph assisted in the joyfulness of the entertainment. In the evening the class dined at Pabst's, Harlem. Dean Van Amringe, '60, and honorary member of '99, was the guest of honor. When called upon to respond to the toast, "What is the best thing '99 can do for Alma Mater?" he answered in a ringing speech: "To hold together just as you have been doing, working for the best interests of Old Columbia."

The class hopes that the present year will prove as successful. The plans of the class, as far as they have been formulated for this winter, are as follows:

1. The first reunion of the class for this year, omitting the gathering at the alumni meeting on October 7, 1901, took place at the Cornell-Columbia football game. In the evening the class dined at Pabst's, Harlem.
2. The second reunion of the year will be the third annual reunion of '99 since graduation, and will be held on Friday evening, December 27, 1901.
3. Publication of the '99 pamphlet, relating to the activities of '99 as a class and the individual records of the men.
4. Spring reunion. Date and place to be decided upon later.
5. Commencement reunion on June 11th. (a) Alumni luncheon. (b) '99 festivities in College Hall and on the campus. (c) Banquet in evening.

Among the candidates for the higher offices in the Greater New York during the recent election we note the names of Seth Low, Arts '70, Robert A. Van Wyck, Law '72, George B. Abbott, Law '72, Isaac Fromme, Law '76, and William Travers Jerome, Law '84.

William Dudley Foulke, College '69, Law '71, formerly Indiana State Senator, and President of the Indiana Civil Service Reform Association,

has been appointed a United States Civil Service Commissioner by President Theodore Roosevelt, Hon. LL.D., 1900.

Columbia College.

NECROLOGY

Mandeville Mower, A.B. '56 died recently.

John Duer, A.B. '59, LL.B. '61, died August 14, 1901, at Liberty, N. Y. He was the son of the late William Duer, '24, who was a member of the Assembly from Oswego and held important offices under the Federal government. He was in his sixty-third year. He studied law with the old firm of Martin & Smith, of which he became a member and remained so until 1896, when the firm became Duer, Strong & Jarvis. When Mr. Jarvis died in 1897, the firm of Duer, Strong & Whitehead was organized, of which Mr. Duer was the senior member at the time of his death. He was one of the best known real estate lawyers in New York City and was the trustee of many estates. He was one of the organizers of the Lawyers' Title Insurance Company, and had always been its treasurer. He belonged to the Metropolitan, Knickerbocker and City Clubs, the Bar Association and the St. Nicholas Society.

Hiram Hunt Nazro, A.B. '63, A.M. '66, for many years cashier and director of the Ninth National Bank, New York City, died May 3, 1901, aged 57 years.

James Hooker Hamersley, A.B. '65, LL.D. '67, died at his country place at Garrisons-on-Hudson on September 15, 1901, aged 57 years. Mr. Hamersley took an active interest in politics and was a literary man of no small distinction. He was a director of the Knickerbocker Fire Insurance Company and a member of the Metropolitan, St. Nicholas, City and University Clubs, the New England Society, and the Society of Colonial Wars. Mr. Hamersley was president of the Knickerbocker Club.

Judge William Preston Beck, A. B. '68, ex-clerk of the Criminal Court and assistant District Attorney, died recently at his home in Pueblo, Colorado.

Hal Allaire, A.B. '69, died suddenly on October 18, 1901, of heart disease at his home in Allaire, New Jersey. He was born in Allaire in 1846. After graduation from college he studied architecture for a while, but finally gave it up and devoted himself to farming. He became much interested in experimental agriculture and made a careful study of its theories. He was president of the Monmouth (N. J.) County Board of Agriculture.

Henry Whitney Bates, A.B. '76, LL.B. '78, A.M. '79, died July 2, 1901, at Scarsdale, N. Y.

George H. Broughton, Jr., A.B. '94, passed away recently after a short illness from typhoid pneumonia. Mr. Broughton was born in Albany in 1872, attending the Normal School of that city until the age of fourteen, when he came to New York, preparing for college at Dr. Chapin's school. He entered Columbia College in 1890, and following the Arts course,

graduated in 1894. Immediately after graduation he became interested in the Morse-Broughton Company, publishers, of which, after his mother's death in 1900, he became sole owner. He was a mason of the 32d degree, and was a member of the Columbia Club, of which he was an enthusiastic incorporator, the New York Athletic Club, and the Hamilton Club of Brooklyn. He was essentially public-spirited, was eager to lend his influence and resources to the cause of good government in this city, and was at the time of his death the secretary of the Merchants' and Manufacturers' Board of Trade.

School of Medicine.

Thomas Masters Markoe, M.D., '41, A.B. Princeton '36, for many years professor of the principles of surgery at the College of Physicians and Surgeons, died August 26, 1901, in the eighty-second year of his age. See this number of the *QUARTERLY*, page 47.

Joseph Le Conte, M.D. '45, A.B. Franklin College '41, B.S. Lawrence Scientific School, '51, died July 6, 1901, in the seventy-eighth year of his age. Professor Le Conte had a world-wide reputation as a geologist and naturalist, being a member of numerous scientific societies and a member of the National Academy of Sciences. In addition to his contributions to geology and natural history, he contributed materially to our knowledge of physiological optics. Professor Le Conte was a gentleman of the old school, erudite in various fields, while contributing largely to the extension of his own particular field in geology. Since 1869 he had occupied the chair of geology and natural history at the University of California, where he was much beloved and highly esteemed.

Henry Simmons White, M.D. '66, LL.B. '70, died at his home in Red Bank, N. J., September 29th, aged 56 years. Prior to his graduation from the College of Physicians and Surgeons, Mr. White served as a volunteer in the United States Army. From 1878 to 1882 he was assistant collector at the port of New York, and in 1890 received the appointment as United States District Attorney for New Jersey.

James Walter Duffy, M.D. '95, died recently at his New York City home in the twenty-sixth year of his age.

Percy John Shute, M.D. '95, died recently, aged 25 years.

Horace Bigelow, M.D. '96, A.B. Amherst '93, died October 15, 1901, aged 28 years. For several years he had been assistant physician at the Roosevelt Hospital Dispensary.

School of Law.

Abram Ronald Kling, LL.B. '72, died recently at Warwick, N. Y., aged 48 years. Mr. Kling was a director of the American Surety Trust Co., and of the Bowery Bank, and a member of the Bar Association.

Peter Hulme, LL.B. '74, A.B. Harvard '72, died recently at his home in Poughkeepsie. Mr. Hulme practised his profession in Poughkeepsie, where he took an active part in politics, having been elected a member of the Assembly in 1878. He was Chamberlain of Poughkeepsie in 1889

and 1890, and also served in several other official positions in the municipal government of that town.

Frederick Davies White, LL.B. '84, B. S. Cornell '82, died July 8, 1901, aged 44 years.

Schools of Applied Science.

Alfred Raymond, Ph.B. '91, A.B. Yale, '88, died at his home in Brooklyn on October 29, 1901, aged 37 years. During the last few years he had acted as Assistant Secretary of the American Institute of Mining Engineers.

Theodore Greely White, Ph.B. '94, A.M. '95, Ph.D. '99, died July 7, 1901, aged 29 years. During the academic years 1896-1900 Mr. White had been assistant in mechanics and in physics in Columbia University at different times.

School of Philosophy.

Frank Loomis Eckerson, A.M. '90, A.B., C. C. N. Y., '88, died on October 28, 1901.

Honorary Alumni.

The Rev. Dr. Ezra A. Huntington, Hon. D.D. '46, for 39 years a professor in the Auburn (N. Y.) Theological Seminary, died recently at the age of 88 years.

Non-graduates.

William B. Litchfield, a member of the class of 1860, College, died at his home in Brooklyn, June 30, 1901. Shortly after leaving college, in 1858, Mr. Litchfield completed the Atlantic Avenue Railroad in Brooklyn. Later he went West and completed a large portion of the Northern Pacific Railroad, then called the St. Paul and Pacific.

George B. Ashley, a member of the class of 1870, Law, died on August 6, 1901, aged 55 years. Mr. Ashley was an active member of both the state and city Bar Associations, and was for many years a leading specialist in corporation law.

L. F. LePrince, a member of the class of 1901 Applied Science, was accidentally shot this fall. Mr. LePrince was prominent in student life, especially in rowing, having been a member of the '99 Varsity and the 1901 Freshman crews.

SUMMARIES OF UNIVERSITY LEGISLATION

THE TRUSTEES, OCTOBER MEETING

President Low announced the death of Bishop Littlejohn, occurring in August, 1901; and the resignation of Mr. Coudert as a trustee on account of continued ill health was received and accepted with regret.

A vote of thanks was tendered to Benjamin B. Lawrence, E.M. '78, S. of M., for his gift of \$200 to establish an annual scholarship in mining engineering, which was designated the "Lawrence Annual Scholarship in Mining Engineering."

The President was authorized to transfer the exhibit of the University, now at the Pan-American Exposition, to the South Carolina Interstate

and West Indian Exposition, to be opened at Charleston, S. C., December 1, 1901.

The President reported the receipt in June last from an anonymous donor of a gift of \$100,000 "towards the founding of a Department of Chinese Languages, Literatures, Religion and Law, to be known as the Dean Lung Professorship of Chinese," and a further gift of \$12,000 from Dean Lung to be added to the Fund, as previously announced at the Commencement meeting of the Alumni. (The correspondence relating to the gift appears in the September *QUARTERLY*.)

The following letter was received from Mr. Low tendering his resignation as President:

MR. W. C. SCHERMERHORN,

Chairman of the Trustees of Columbia College in the City of New York.

Sir:—As you are aware, I have been obliged to make known my purpose of accepting the nominations that will be tendered to me for the office of Mayor of New York. Under these circumstances I hereby place in your hands, for submission to the Trustees of the University, my resignation of the office of President with which my fellow trustees honored me twelve years ago. In doing so I beg to ask that the resignation be accepted to take effect immediately.

It is clearly undesirable for the University to keep at its head one who can no longer give to it the sole and exclusive attention that it deserves; and, perhaps, I may add without being misunderstood, that I think it equally in my own interest that this course should be pursued. My own wish, therefore, coincides with what I conceive to be the interest of the University, when I ask that my resignation be considered as final.

It is, however, with no light heart that I take this serious step; but only under the constraint of a call to the public service that brooks no denial. Columbia University cannot teach men to be patriotic if it will make no sacrifices in the public interest; and not even Columbia's President can expect to be exempt from the obligation to illustrate good citizenship as well as to teach it.

In now surrendering my charge into the hands of the trustees, I am glad to believe that almost all of the special problems that have commanded my attention have been solved. The only large question not fully disposed of is the question of the debt necessarily incurred as a consequence of removal to our new site. In all probability our resources within the next six or seven years will increase to a point where that burden will cease to be felt. In the meantime our interest charge cannot be met out of our income without impairment of our educational efficiency. We have been successful in raising the needed money this year; and I cannot believe that the generous people of the city will fail to sustain, in this respect, year by year, for the few years the need is likely to last, the University that has done and is doing so much for the City of New York. Of course the University looks in large measure to future benefactions to pay off the debt itself.

The results accomplished could not have been realized except for the strong and unwavering support that I have received at all times from the trustees ; and for this support, the value of which I alone can estimate, I thank you, sir, and every one of my colleagues. I take this opportunity, also, of conveying my thanks, through you, to the noble body of men, professors and instructors of every grade, who have held up my hands so loyally during all these years. It is they, and not I, who have made the Columbia University of which we are all so proud, and I bespeak from them for my successor, whoever he may be, the same loyal and affectionate support that they have given to me.

With every good wish for Alma Mater, whom it is always a delight to serve ; and rejoicing, that, while retiring from the presidency, I may still continue in her service as trustee,

I am, sir,

Very respectfully yours,

SETH LOW.

In view of the resignation of President Low it was

Resolved, That the resignation of Seth Low as president of this corporation be, and it is hereby accepted to take effect immediately ; and that the following minute relative to Mr. Low's resignation be adopted, and a copy sent to Mr. Low :

"The trustees have learned with the deepest regret that Mr. Low has determined to resign the office of president of this University. They appreciate, however, the patriotic purposes which have induced him to retire from his present post ; and they recognize the delicacy and unselfishness which have dictated his requests that his resignation be considered final and that it be accepted to take effect immediately. Requests so made cannot be ignored or refused, and the trustees have therefore felt constrained to comply with Mr. Low's wishes and to accept his resignation at this present meeting.

In so doing they deem it proper to enter upon their minutes a record of their affectionate regard for Mr. Low personally, and of their high opinion of the value of his services to the University.

Mr. Low has now served as trustee for twenty years. He has served as president for exactly twelve years, having been elected October 7, 1889—a period marked by changes of the utmost importance, which may fairly be said to have created a new Columbia. A great university has been organized out of a group of scattered and unrelated schools. It has been moved to new and generous quarters that worthily accommodate it and that invite the large expansion which is certainly before it. It has established intimate and satisfactory affiliations with Barnard College and Teachers College. Its educational organization is thorough and effective ; a strong, enthusiastic common life now pervades and inspires every part ; the number of its teachers and students was never so large ; its educational prestige was probably never higher ; and in every quarter, both inside and outside the University, the utmost good-will prevails.

Such a record of achievement tells its own story of the head of the University; but it would be a most incomplete account that failed to make some reference to Mr. Low's extraordinary and unwearied generosity. At his own cost he has built the University Library building; he has established trust funds for the encouragement of study and research, and he has contributed in unnumbered ways to supplement the funds of the University, and to help every good cause in which its members are interested.

The trustees cannot but deplore the loss of an executive officer so able, experienced and zealous, but they rejoice to learn that Mr. Low intends to continue a trustee and they indulge the hope that whatever post of duty he may hereafter occupy this board will still continue to enjoy the benefit of his counsel."

Professor Nicholas Murray Butler was thereupon appointed acting president, to serve until the further order of the board, with the powers and duties of president, and it was referred to a committee of five, to be appointed by the chair, including the chairman, to consider and report upon the subject of filling the vacancy in the office of president and to nominate one or more candidates for the consideration of the board.

The chairman appointed to serve on such committee with himself, the Rev. Dr. Dix and Messrs. Rives, Mitchell and Pine.

The Committee on Finance reported that securities of the inventory value of \$148,693.44 had been received on account of the legacy left by Stephen Whitney Phoenix.

The sum of \$1,000 returned by Mr. G. W. Hill on account of his salary for the last academic year as lecturer in celestial mechanics, was restored, as requested by him, to the Catherine Bruce Fund, from whence it came.

The President reported that Professor Keener had tendered his resignation as Dean of the Law School; that Professor Kirchwey had been elected Dean in his place, and that Professor Burdick had been elected Secretary; also that leave of absence for the current academic year had been given to Professor Hyslop and that his courses would be given by Dr. Adam Leroy Jones, recently assistant in philosophy, with the title of lecturer in philosophy; also that leave of absence for the same period had been given to Professor Mayo-Smith, and that his principal course would be given by Dr. E. R. L. Gould, Ph.D., of Johns Hopkins University, with the title of lecturer in political economy.

The President was authorized to appoint a secretary to be known as the employment secretary, who shall serve as the secretary of the Committee on Employment for Students, and also of the Appointment Committee; and who shall render such other services as may be assigned to him by the President.

The following appointments were made: Henry C. Sherman, Ph.D., tutor in analytical chemistry, was made instructor in analytical chemistry, the appointment to date from July 1, 1901; Edward L. Kurtz, E.M., to be instructor in mining, *vice* Frank C. Hooper, resigned; William C.

Uhlig, Ph.B., to be assistant in chemistry, *vice* Hardee Chambliss, resigned; Richard I. Dougherty, C.E., to be assistant in civil engineering; Philip B. Hawk, M.S., to be assistant in physiological chemistry, *vice* Holmes C. Jackson, resigned, and Isaac D. Parsons, E.E., to be assistant in electrical engineering.

THE TRUSTEES, NOVEMBER MEETING

A vote of thanks was tendered to the Parsi donors in India of the valuable collection of Avestan manuscripts presented to the University through Professor Jackson; and the plaster bust of De Witt Clinton presented to the University by Fitzhugh Townsend, of the class of '96, was accepted with thanks.

The clerk was authorized to have printed in suitable book form the minutes adopted by the Trustees and by the University Council respectively upon the retirement of Mr. Low, one copy to be on vellum to be presented to Mr. Low, and one hundred copies on paper, viz: one copy for each trustee, three copies for the library of the University and the remainder for distribution among other libraries and universities.

The Acting President submitted a report on the registration of the University as of November 1, 1901; and reported the election of Professor Perry as Acting Dean of the Faculty of Philosophy; and of Professor Munroe Smith in place of Professor Richmond Mayo-Smith, resigned, as the delegate of the Faculty of Political Science in the University Council for the unexpired term ending June 30, 1904.

The following appointments were made:—William C. Clarke, M.D., to be assistant in normal histology; William W. Miller, M.D., to be assistant in normal histology; Eugene H. Pool, M.D., to be assistant demonstrator in anatomy, and Miles R. Moffat, B.S., to be assistant in physics to succeed H. M. Derr, resigned—all for the remainder of the academic year.

UNIVERSITY STATISTICS

The following table, compiled by the Registrar, shows the registration in all departments of the University on Nov. 7, 1901. The figures given for preceding years are also those of Nov. 7, in each case except that to which attention is called in the first footnote. An examination of the table will show that the number of undergraduates, in Columbia College and Barnard College combined, has increased by 53; that of non-professional graduate students by 64, that of professional students by 247,—making a total increase of 333 in the number of resident students. In the group comprising auditors, summer session students and extension students, there is a loss of 141,—leaving a net increase of 214 in the grand total of students. The figure for "total University influence"—perhaps not the best phrase possible for the sum total of officers and students—has reached the imposing magnitude of 4,991. Ere this time it has no doubt passed 5,000.

Students registered in :	1897	1898	1899	1900	1901	Year's Gain
Columbia College	312	387	446	464	481	17
Freshmen	102	129	106	124	141	17
Sophomores	85	89	113	95	102	7
Juniors	55	86	89	99	98	—
Seniors	48	55	93	88	94	6
Specials	22	28	45	58	46	— 12
Barnard College*	177	202	223	292	328	36
Freshmen	38	43	54	82	99	17
Sophomores	29	39	38	51	73	22
Juniors	23	23	39	39	48	9
Seniors	22	24	39	52	50	— 2
Specials	65	76	53	68	58	— 10
Total undergraduates	489	589	669	756	809	53
Faculty of Political Science	64	85	118	109	142	33
Faculty of Philosophy	112	120	108	239	280	41
Faculty of Pure Science	44	57	53	64	54	— 10
Barnard College*	61	76	71	†	†	†
Total non-professional graduate students.	280	338	350	412	476	64
School of Applied Science	404	431	464	546	604	58
First-year	123	128	130	153	193	40
Second-year	106	106	114	132	156	24
Third-year	74	86	111	123	127	4
Fourth-year	80	75	69	99	91	— 8
Graduates	8	7	3	6	6	0
Specials	13	29	37	33	31	— 2
Law School	368	342	377	427	443	16
First year	135	132	166	172	165	— 7
Second-year	139	103	111	151	150	— 1
Third-year	92	106	99	100	126	26
Specials	2	1	1	4	2	— 2
Medical School	729	697	757	751	815	64
First-year	222	197	226	245	269	24
Second-year	190	162	159	190	199	9
Third-year	151	178	158	148	179	31
Fourth-year	143	140	173	147	148	1
Specials	23	20	41	21	20	— 1
Teachers College	—	196	317	448	557	109
First-year	—	18	42	24	17	— 7
Second-year	—	20	19	30	28	— 2
Third-year	—	46	80	93	141	48
Fourth-year	—	29	46	76	79	3
Graduates	—	51	92	127	162	35
Specials	—	32	38	40	19	— 21
Auditors and unclassified students.	—	—	—	58	111	53
Total professional students	1501	1666	1915	2172	2419	247
Double registration †	—	—	—	105	136	31
Net total resident students	2270	2593	2934	3235	3568	333
Auditors	—	15	22	30	18	— 2
Students at Summer Session	—	—	—	417	579	162
Extension students, Teachers College. ‡	—	470	750	721	420	— 301
Total	—	485	772	1158	1017	— 141
Double registration 	—	—	—	108	86	— 22
Grand total of students	—	3078	3706	4285	4499	214
Officers	—	426	443	471	492	21
Total university influence*	—	3504	4149	4756	4991	235

* Barnard figures for 1897-1898 are those for the end of the academic year.

† From Oct., 1900, women graduates register under the University faculties.

‡ Includes candidates for University degrees and Teachers College diplomas.

§ Includes Summer Session students who have returned for work this fall.

|| Extension students are held to full requirements of regular courses in T. C.

* Excluding 748 pupils in Horace Mann School and 90 in Speyer School.

G. B. GERMANN.

ESTABLISHED 1818

BROOKS BROTHERS

BROADWAY

NEW YORK



Holiday Suggestions

Breakfast Jackets,

Dressing Gowns,

Kit Bags,

Suit Cases,

Carriage and Traveling Rugs,

Automobile Accessories, etc.

SEE OUR ILLUSTRATED CHRISTMAS BOOKLET FOR FURTHER PARTICULARS.
THESE GOODS ARE IN ADDITION TO OUR REGULAR STOCK OF CLOTHING.

C. B. WILKINSON

42 JOHN STREET,
NEW YORK CITY

MAKER OF

COLLEGE FRATERNITY BADGES

ALSO, BADGES AND MEDALS OF EVERY DESCRIPTION

CORRESPONDENCE SOLICITED

INTERCOLLEGIATE BUREAU AND REGISTRY OF ACADEMIC COSTUME



COTRELL & LEONARD

472-478 Broadway

ALBANY, N. Y.

OFFICIAL MAKERS OF THE CAPS, GOWNS AND HOODS

to Columbia, Harvard, Yale, Princeton, Johns Hopkins, Cornell, Williams, University of Chicago, and the others. Class Contracts a Specialty.

Gowns for the Pulpit and the Bench

Illustrated Bulletin upon application.

Our New York representative will call upon request to us.

Publications of the Columbia University Press

The Macmillan Company, Agents, 66 Fifth Avenue, New York

THE PRESS was incorporated, June 8, 1893, to promote the publication of the results of original research.

It is a private corporation, related directly to Columbia University by the provisions that its Trustees shall be officers of the University and that the President of Columbia University shall be President of the Press.

Books published at net prices are sold by booksellers everywhere at the advertised net prices. When delivered from the publishers, carriage, either postage or expressage, is an extra charge.

BIOLOGY

ATLAS OF NERVE CELLS. By M. ALLEN STARR, M.D., Ph.D.; with the coöperation of OLIVER S. STRONG, Ph.D., and EDWARD LEAMING.

With 53 Albortype plates and 13 diagrams. Royal 4to, cloth, pp. x + 78, \$10.00 net.

H. H. DONALDSON, in *Science*: "An atlas with good plates cannot fail to be useful to many persons and in many ways; and accompanied, as this one is, by a most instructive text, there can be no question of our indebtedness to the authors for their contribution to neurology."

AN ATLAS OF THE FERTILIZATION AND KARYOKINESIS OF THE OVUM. By EDMUND B. WILSON, Ph.D., Professor in Invertebrate Zoölogy in Columbia University; with the coöperation of EDWARD LEAMING, M.D., F.R.P.S., Instructor in Photography at the College of Physicians and Surgeons, Columbia University. Royal 4to, cloth, \$4.00 net.

President DAVID STARR JORDAN, in *The Dial*: "Professor Wilson has rendered a great service to teachers and students in the publication of the splendid series of micro-photographs of these different processes. . . . These are accompanied by an admirably lucid text, with many diagrammatic figures explanatory of the plates."

COLUMBIA UNIVERSITY BIOLOGICAL SERIES

Edited by HENRY FAIRFIELD OSBORN and EDMUND B. WILSON.

VOL. I. FROM THE GREEKS TO DARWIN. An Outline of the Development of the Evolution Idea. By HENRY FAIRFIELD OSBORN, DaCosta Professor of Zoölogy, Columbia University.

8vo, cloth, pp. x + 259, illustrated, \$2.00 net.

Professor DAVID STARR JORDAN, in *The Dial*: "The work is extremely well done. Dr. Osborn is himself one of the authorities in the science of evolution, to which he has made important contributions."

VOL. II. AMPHIOXUS AND THE ANCESTRY OF THE VERTEBRATES. By ARTHUR WILLEY, Sc.D., Balfour Student of the University of Cambridge.

8vo, cloth, pp. xvii + 326, illustrated, \$2.50 net.

VOL. III. FISHES, LIVING AND FOSSIL. An Outline of Their Forms and Probable Relationships. By BASHFORD DEAN, Ph.D., Adjunct Professor of Zoölogy, Columbia University.

8vo, cloth, pp. xiv + 300, with 345 figures, \$2.50 net.

VOL. IV. THE CELL IN DEVELOPMENT AND INHERITANCE. By EDMUND B. WILSON, Ph.D., Professor of Zoölogy, Columbia University.

8vo, cloth, profusely illustrated, \$3.50 net.

New York Nation: "One of the very best scientific manuals published in America. . . . Students and investigators of biology, in whatever department they may be working, ought to be familiar with this important work."

VOL. V. THE FOUNDATIONS OF ZOÖLOGY. By WILLIAM KEITH BROOKS, Professor of Zoölogy, Johns Hopkins University.

8vo, cloth, pp. viii + 339, \$2.50 net.

Science: "A book that will live as a permanent addition to the common sense of science. It belongs to literature as well as to science. It belongs to philosophy as much as to either, for it is full of that fundamental wisdom about realities which alone is worthy of the name of philosophy."

VOL. VI. THE PROTOZOA. By GARY N. CALKINS, Ph.D. Instructor in Zoölogy, Columbia University.

8vo, cloth, 16 + 347 pp., \$3.00 net; postage, 18 cents.

The only volume in the English language upon the entire group of unicellular animals.

IN PREPARATION.

VOL. VII. AN INTRODUCTION TO COMPARATIVE NEUROLOGY. By OLIVER S. STRONG, Ph.D.

BIOGRAPHY

FRANCIS LIEBER. His Life and Political Philosophy. By LEWIS R. HARLEY, Ph.D.

8vo, cloth, pp. x + 213, portrait, \$1.75 net; postage, 10c.

MEMOIRS OF FREDERICK A. P. BARNARD, D.D., LL.D., L.H.D., D.C.L., Tenth President of Columbia College in the City of New York. By JOHN FULTON. With portraits.

8vo, cloth, gilt top, pp. xii + 485, \$4.00 net; postage, 17 cents.

J. G. FITCH, in *Nature*: "A useful contribution to educational history. It is the record of a strenuous and honourable life, of high and generous aims often obscured by discouragement, but ever kept steadily in view, and of a considerable number of experiments, both in regard to instruction and discipline, which have done much to render the solution of educational problems easier."

CLASSICAL PHILOLOGY

CLASSICAL STUDIES IN HONOUR OF HENRY DRISLER.

8vo, cloth, pp. ix + 310, portrait and other illustrations, \$4.00 net; postage, 15 cents.

COLUMBIA UNIVERSITY STUDIES IN ENGLISH

Issued under the supervision of the Department of English.

VOL. I. JOSEPH GLANVILL. A Critical Biography by FERRIS GREENSLET, Ph.D., Fellow in English at Columbia University.

12mo, cloth, pp. xi + 235, \$1.50 net; postage, 9 cents.

Other volumes in preparation.

COLUMBIA UNIVERSITY STUDIES IN LITERATURE

Issued under the authorization of the Department of Comparative Literature, GEORGE EDWARD WOODBERRY, Professor.

SPANISH LITERATURE IN THE ENGLAND OF THE TUDORS. By JOHN GARRETT UNDERHILL.

12mo, cloth, pp. x + 438, \$2.00 net; postage, 11 cents

The Chicago Evening Post: "A book that ought to have a permanent place in the history of that period. . . . We commend it to the students of literature everywhere."

ROMANCES OF ROGUERY. An Episode in the History of the Novel. By FRANK WADLEIGH CHANDLER. In two parts.

PART I. The Picaresque Novel in Spain

12mo, cloth, pp. ix + 483, \$2.00 net; postage, 11 cents

The Independent: "We have found Mr. Chandler's treatment of the subject both attractive and informing; full enough for all practical purposes; scholarly without pedantic show of learning; accurate, yet not overloaded with details, and above all charmingly written."

A HISTORY OF LITERARY CRITICISM IN THE RENAISSANCE, with Special Reference to the Influence of Italy in the Formation and Development of Modern Classicism. By JOEL ELIAS SPINGARN.

12mo, cloth, pp. xi + 330, \$1.50 net; postage, 10 cents.

The Nation: "Thorough in execution, good in method and style, and an excellent example of what a monograph in literary history should be."

THE CLASSICAL HERITAGE OF THE MIDDLE AGES. By HENRY OSBORNE TAYLOR, sometime Lecturer in Literature at Columbia University; author of "Ancient Ideals."

Cloth, pp. xv + 400, \$1.75 net; postage, 15 cents.

COLUMBIA UNIVERSITY GERMANIC STUDIES

VOL. I, NO. 1. SCANDINAVIAN INFLUENCE ON SOUTHERN LOWLAND SCOTCH. A Contribution to the Study of the Linguistic Relations of English and Scandinavian. By GEORGE TOBIAS FLOM, B.L., A.M., sometime Fellow in German, Columbia University.

8vo, paper, pp. xv + 80, \$1.00 net.

VOL. I, NO. 2. OSSIAN IN GERMANY. Bibliography—General Survey—Ossian's Influence upon Klopstock and the Bards. By RUDOLF TOMBO, JR., A.M., Ph.D., sometime Fellow in German, Columbia University.

8vo, paper, pp. 157, \$1.25 net.

VOL. I, No. 3. THE INFLUENCE OF OLD NORSE LITERATURE UPON ENGLISH LITERATURE. By CONRAD HJALMAR NORDBY.

8vo, paper, pp. 78, \$1.00 net.

Other volumes in preparation.

ORIENTAL LANGUAGES

ZOROASTER, THE PROPHET OF ANCIENT IRAN. By A. V. WILLIAMS JACKSON, Professor of Indo-Iranian Languages in Columbia University.

With three illustrations, 8vo, cloth, gilt top, pp. xxiii + 314, \$3.00 net; postage, 18 cents

COLUMBIA UNIVERSITY INDO-IRANIAN SERIES

Edited by A. V. WILLIAMS JACKSON, Professor of Indo-Iranian Languages in Columbia University.

1. A SANSKRIT GRAMMAR FOR BEGINNERS. With Graded Exercises, Notes and Vocabulary. By A. V. WILLIAMS JACKSON
In preparation.

2. **INDO-IRANIAN PHONOLOGY.** With Special reference to the Middle and New Indo-Iranian Languages. By LOUIS H. GRAY, Ph.D., sometime Fellow in Indo-Iranian Languages in Columbia University. *In press.*

Special efforts have been made to render the work convenient for reference.

3. **A BIBLIOGRAPHY OF THE SANSKRIT DRAMA.** By MONT GOMERY SCHUYLER, Jr., Fellow in Indo-Iranian Languages in Columbia University. *Ready in the autumn.*

Other volumes in the series are planned for.

PHILOSOPHY

- ANCIENT IDEALS.** A Study of Intellectual and Spiritual Growth from Early Times to the Establishment of Christianity. By HENRY OSBORN TAYLOR.

In two volumes. 8vo, cloth, gilt tops, \$5.00 net.

Vol. I., pp. xi + 461. Vol. II., pp. vii + 430; postage, 18 cents each.

COLUMBIA UNIVERSITY CONTRIBUTIONS TO PHILOSOPHY, PSYCHOLOGY AND EDUCATION

VOLUME I

1. **Friedrich Heinrich Jacobi.** A Study in the Origin of German Realism. By NORMAN WILDE, Ph.D.

8vo, paper, pp. 77, 60 cents net.

2. **Kant's Inaugural Dissertation of 1770.** Including a translation of the Dissertation, together with an Introduction and Discussion. By W. J. ECKOFF, Ph.D.

8vo, paper, pp. 101, 90 cents net.

3. **The Ethical System of James Martineau.** By JOSEPH H. HERTZ, Ph.D.

8vo, paper, pp. 85, 60 cents net.

4. **Friedrich Eduard Beneke.** The Man and His Philosophy. By FRANCIS BURKE BRANDT, Ph.D.

8vo, paper, pp. 167, \$1.00 net.

VOLUME II

1. **Hegel as Educator.** By FREDERIC LUDLOW LUQUEER, Ph.D.

8vo, paper, pp. 185, \$1.00 net.

2. **Hegel's Doctrine of the Will.** By JOHN ANGUS MACVANNEL, Ph.D.

8vo, paper, pp. 102, \$1.00 net.

3. **The Basis of Early Christian Theism.** By LAWRENCE T. COLE, Ph.D.

8vo, paper, 50 cents net.

4. **Early American Philosophers.**

By ADAM LEROY JONES, Ph.D.

8vo, paper, 75 cents net.

VOLUME III

1. **The Formal and Material Elements of Kant's Ethics.**

By WILLIAM MORROW WASHINGTON, Ph.D.

8vo, paper, 60 cents net.

2. **A Syllabus of Psychology.**

By JAMES H. HYSLOP, Ph.D.

8vo, paper, \$1.00 net.

- 3-4. **A Syllabus of an Introduction to Philosophy.** By WALTER T. MARVIN, Ph.D.

8vo, paper, pp. x + 152, \$1.25 net.

VOLUME IV

[The Monographs in Volumes IV and V were first issued as Supplements to the PSYCHOLOGICAL REVIEW.]

1. **On Sensations from Pressure and Impact.** By HAROLD GRIFFING, Ph.D.

8vo, paper, 60 cents net.

2. **Mental Imagery.** By WILFRID LAY, Ph.D.

8vo, paper, 50 cents net.

3. **Animal Intelligence.** By EDWARD L. THORNDIKE, Ph.D.

8vo, paper, \$1.00 net.

4. **The Emotion of Joy.** By GEORGE V. N. DEARBORN, Ph.D.

8vo, paper, 75 cents net

VOLUME V

1. **Conduct and the Weather.** By EDWIN G. DEXTER, Ph.D.
8vo, paper, \$1.00 net.

2. **On After-Images.** By SHEPHERD I. FRANZ, Ph.D.
8vo, paper, 75 cents net.

3. **Inhibition.** By BURTIS B. BREESE, Ph.D.
8vo, paper, 75 cents net.

4. **On the Accuracy of Movement.** By ROBERT S. WOODWORTH, Ph.D.
8vo, paper, \$1.00 net.

VOLUME VI

- 1-4. **Educational Legislation and Administration in the Colonies.** By ELSIE WORTHINGTON CLEWS, Ph.D.
8vo, paper, pp. xi + 524, \$2.00

VOLUME VII

1. **The Education of the Pueblo Child.** By FRANK G. SPENCER, Ph.D.
8vo, paper, pp. 97, 75 cents net.

2. **The Economic Aspect of Teachers' Salaries.** By CHARLES BARTLETT DYKE, A.M.
8vo, paper, pp. 84, \$1.00 net.

3. **Education in India.** By WILLIAM I. CHAMBERLAIN, Ph.D.
8vo, paper, pp. 107, 75 cents net.

4. **Horace Mann in Ohio.** By GEORGE A. HUBBELL, A.M.
8vo, paper, pp. 70, 50 cents net.

VOLUME VIII

1. **Imitation in Education: Its Nature, Scope and Significance.** By JASPER NEWTON DEAHL, A.M.
8vo, paper, pp. 103, 60 cents net.

2. **The Historical Development of School Readers and of Method in Teaching Reading.** By RUDOLPH REX REEDER, Ph.D.
8vo, paper, pp. 92, 60 cents net.

- 3-4. **Notes on Child Study.** By EDWARD L. THORNDYKE, Ph.D.
8vo, paper, 175 pp., \$1.00 net.

VOLUME IX

1. **The Mental Life of the Monkeys.** By EDWARD L. THORNDYKE, Ph.D.
8vo, paper, pp. 57, 75 cents net.

2. **The Correlation of Mental and Physical Tests.** By CLARK WISSLER, Ph.D.
8vo, paper, pp. 62, 75 cents net.

POLITICAL AND SOCIAL SCIENCE

ECONOMICS

- SCIENCE OF STATISTICS.** By RICHMOND MAYO-SMITH, Ph.D.,
Professor of Political Economy and Social Science, Columbia Univ.

PART I. Statistics and Sociology

8vo, cloth, gilt top, pp. xvi + 399, \$3.00 net; postage, 18 cents.

The Dial: "An exceedingly useful work. . . Many vague notions and insecure theories will be tested by the yard stick of this book, and no serious worker can afford to ignore it. It is a distinct merit of the work that the data compiled are arranged in a way to excite interest and lead to results."

PART II. Statistics and Economics

8vo, cloth, gilt top, pp. xiii + 467, \$3.00 net; postage, 18 cents.

Yale Review: "The volume will certainly take its place as one well fitted for general reference in that field where qualitative distinctions are supplemented by quantitative measurements."

- ESSAYS IN TAXATION.** By EDWIN R. A. SELIGMAN, Professor
of Political Economy and Finance in Columbia University.

Third edition, 8vo, cloth, gilt top, pp. x + 434, \$3.00 net; postage, 19 cents.

The Nation: "These thirteen essays, though nominally disconnected, are so uniform in treatment and so interpenetrated by well-matured convictions, that they may be said to constitute a treatise on taxation. . . capable of holding its own with the best writing on taxation."

BY THE SAME AUTHOR.

THE SHIFTING AND INCIDENCE OF TAXATION

Second edition, completely revised and enlarged, 8vo, cloth, gilt top, pp. xii + 337, \$3.00 net; postage, 18 cents

Annals of the American Academy: "One of the indispensable handbooks of all students of public finance."

HISTORY

BISMARCK AND GERMAN UNITY. A Historical Outline. By MUNROE SMITH, J.U.D., Professor of Roman Law and Comparative Jurisprudence in Columbia University.

12mo, gilt top, pp. ix + 99, portrait, \$1.00 net; postage, 6 cents.

THE BATTLE OF HARLEM HEIGHTS, SEPTEMBER 16, 1776.

With a Review of the Events of the Campaign, by HENRY P. JOHNSTON, A.M., Professor of History, College of the City of New York.

8vo, cloth, pp. xii + 234, illustrated, \$2.00 net; postage, 11 cents.

MUNICIPAL GOVERNMENT

THE GOVERNMENT OF MUNICIPALITIES. By DORMAN B. EATON.

8vo, cloth, gilt top, pp. x + 498 + 28, \$4.00 net; postage, 20 cents.

Review of Reviews: "Mr. Eaton has in this volume provided us with the best systematic treatise that is available for the American student, lawmaker, or municipal reformer, upon the principles that should be observed in the framing of a city charter, and upon the position of the American city in the state of which it is one of the minor jurisdictions. . . ."

MUNICIPAL HOME RULE. A Study in Administration. By FRANK J. GOODNOW, A.M., LL.D., Professor of Administrative Law in Columbia University; author of "Comparative Administrative Law," etc.

12mo, cloth, pp. xxiv + 283, \$1.50 net; postage, 10 cents.

The Outlook: "The volume is an exceptionally valuable one to close students of municipal affairs."

BY THE SAME AUTHOR.

MUNICIPAL PROBLEMS. 12mo, cloth, pp. xiii + 321, \$1.50 net; postage, 10c.

Chicago Evening Post: "One of the most trenchant and scholarly contributions to political science of recent writing."

SOCIOLOGY

THE PRINCIPLES OF SOCIOLOGY. An Analysis of the Phenomena of Association and of Social Organization. By FRANKLIN HENRY GIDDINGS, M.A., Professor of Sociology in Columbia University.

8vo, cloth, gilt top, pp. xxvi + 476, \$3.00 net; postage, 20 cents.

The New Unity: "Professor Giddings' book is highly stimulating. He is a vigorous thinker and a strong writer, and he has a broad knowledge of his subject and its various affiliations."

STUDIES IN HISTORY, ECONOMICS AND PUBLIC LAW

Edited by the Faculty of Political Science of Columbia University.

VOLUME IX—1897-98

617 pp., \$3.50 net; in cloth, \$4.00 net.

1. **English Local Government of Today.** A Study of the Relations of Central and Local Government. By MILO ROY MALTBY, Ph.D.

\$3.00 net.

Vol. IX. No. 1, may also be obtained bound, \$3.50 net.

2. **German Wage Theories.** A History of Their Development. By JAMES W. CROOK, Ph.D.

\$1.00 net.

3. **The Centralization of Administration in New York State.** By JOHN ARCHIBALD FAIRLIE, Ph.D.

\$1.00 net.

VOLUME X—1898-99

500 pp., \$3.00 net; in cloth, \$3.50 net

1. **Sympathetic Strikes and Sympathetic Lockouts.** By FRED. S. HALL, Ph.D.

\$1.00 net; cloth, \$2.00 net.

2. **Rhode Island and the Formation of the Union.** By FRANK GREENE BATES, Ph.D.

\$1.50 net.

3. **Centralized Administration of Liquor Laws in the American Commonwealths.** By CLEMENT MOORE LACEY SITES, Ph.D.

\$1.00 net.

VOLUME XI—1899

495 pp., \$3.50 net; in cloth, \$4.00 net.

- The Growth of Cities.** By ADNA FERRIN WEBER, Ph.D.

VOLUME XII—1899-1900

583 pp., \$3.50 net; in cloth, \$4.00 net.

1. **History and Functions of Central Labor Unions.** By WILLIAM MAXWELL BURKE, Ph.D.

\$1.00 net.

2. **Colonial Immigration Laws.** A Study of the Regulation of Immigration by the English Colonies in America. By EMBERSON EDWARD PROPER, A.M.

75 cents net.

3. **History of Military Pension Legislation in the United States.** By WILLIAM HENRY GLASSON, Ph.D.

\$1.00 net.

4. **History of the Theory of Sovereignty since Rousseau.** By C. E. MERRIAM, Jr., Ph.D.

\$1.50 net.

VOLUME XIII—1901

570 pp., \$3.50 net; in cloth, \$4.00 net.

1. **The Legal Property Relations of Married Parties.** By ISIDOR LOEB, Ph.D.

\$1.50 net.

2. **Political Nativism in New York State.** By LOUIS DOW SCISCO, Ph.D.

\$2.00 net.

3. **The Reconstruction of Georgia.** By EDWIN C. WOOLLEY, Ph.D.

\$1.00 net.

VOLUME XIV—1901

1. **Loyalism in New York during the American Revolution.** By ALEXANDER CLARENCE FLICK, Ph.D.

\$2.00 net.

2. **The Economic Theory of Risk and Insurance.** By ALLAN H. WILLETT, Ph.D.

\$1.50 net.

VOLUME XV—1901

- Civilization through Crime.** By ARTHUR CLEVELAND HALL.

In Press.

ROMANCE LITERATURE

- LI **LIVRES DU GOUVERNEMENT DES ROIS.** A XIIIth Century French Version of Egidio Colonna's Treatise De Regimine Principum. Now first published from the Kerr MS. Together with introduction and notes and full-page facsimile. By SAMUEL PAUL MOLENAER, A.M., Ph.D., Instructor in the University of Pennsylvania; sometime Fellow of Columbia University.

8vo, cloth, gilt top, pp. xlii + 461, \$3.00 net; postage, 19 cents.

COLUMBIA UNIVERSITY STUDIES IN ROMANCE LITERATURE AND PHILOLOGY

Edited by ADOLPHE COHN, Professor of the Romance Languages and Literatures, Columbia University.

- No. 1. **FREDÉRIC MISTRAL, POET AND LEADER IN PROVENCE.** By CHARLES ALFRED DOWNER, Ph.D.

2amo, cloth, pp. 120 + 267, \$1.50 net; postage, 12 cents.

Other volumes in preparation.





Alumni Associations

All graduates and former students are eligible to membership in one or more of the Associations, and are invited to become members.

ASSOCIATION OF THE ALUMNI OF COLUMBIA COLLEGE

All graduates of the College may become members upon signing the roll and paying one year's dues. Annual dues, \$5; for graduates of less than five years' standing, \$2. Life membership fee, \$50. Former students whose classes have graduated, and graduates of other Schools may become Associate Members upon the same terms, upon being elected by the Standing Committee. The UNIVERSITY QUARTERLY is sent to all members of the Association without additional charge.

FREDERICK P. KEPPEL, *Secretary*,
Columbia University.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

All graduates of the College of Physicians and Surgeons may become members upon notifying the Secretary and paying one year's dues. Annual dues, \$3. The UNIVERSITY QUARTERLY is sent to all members of the Association without additional charge.

FREDERIC RANDOLPH BAILEY, M.D., *Secretary*,
College of Physicians and Surgeons,
437 West 59th Street.

ALUMNI ASSOCIATION OF THE SCHOOLS OF SCIENCE

All graduates of the Schools of Science are eligible to election. Former students whose classes have graduated may be elected Associate Members. Annual dues, \$3.

FREDERICK R. HUTTON, *Secretary*,
Engineering Building,
Columbia University.

Ceylon and India Tea

GREEN OR BLACK

Delicious in FLAVOR, of Great STRENGTH
and Absolutely PURE

THE ELECT OF TEAS

"A PAPER FOR THE HOMES."

THE MAIL AND EXPRESS

NEW YORK

Prompt and Authoritative Reviews of the Best Books.